

The Genus *Phragmipedium*, Rolfe, *Orchid Rev.* 4: 331 (1896), nom. cons.

Type: *Phragmipedium* [Phrag.] *caudatum*

[frag-muh-PEE-dee-um kaw-DAY-tum]

There appears to be some 'churn' regarding *Phragmipedium* species. Per Kew there are 23 species. Per OrchidWiz (which states its updated with the RHS species list, I'm assuming Kew monocot) has 29 species and 6 natural hybrids (OrchidWiz [update Dec 2018]). In researching the reason for the difference for the seven 'species' (listed in OrchidWiz) I found the following information:

1. Not able to find any information (including researching on the web) for **two** 'species' (*Phrag. amazonicum* and *Phrag. ropperi*)
2. *Phrag. tetziaffianum* is believed to be **a hybrid**, two potential possibilities.
3. Moved to another **two** species (sometimes identified as var.):
 - a. *Phrag. exstaminodeum* ssp. Warsze to *Phrag. humboldtii*
 - b. *Phrag. wallisii* syn for *Phrag. warszewiczianum*
4. The final **two** believed to be natural hybrids:
 - a. *Phrag. brasiliense* (*Phrag. vittatum* x *Phrag. sargentianum*)
 - b. *Phrag. richteri* (*Phrag. pearcei* x *Phrag. bossierianum*)

With this confusion is added that new species are being found, three new species recognized by Kew in the past 5 years: *Phrag. anguloi* (2014), *Phrag. guianense* (2014), and *Phrag. ramiroi* (2017). All listed in OrchidWiz 5.1 update Dec. 2018.

Phragmipediums are tropical American species ranging from Mexico south to Bolivia – Brazil. They are sympodial epiphytes, lithophytes, or terrestrials plants that are found in a variety of places (all with good air circulation) such as; wet areas such as wet meadows, bogs, on rocks in fast moving water, and on river banks (sometimes below the high-water mark at elevations ranging from sea level to 2300 m (7,500 ft.). Although there are few species, there has been significant hybridizing with over 1,050 registered *Phragmipedium* hybrids. They have short stems, fibrous roots, with fan shaped groups of 6 to 8 coriaceous leaves that can range from 2 to 43 inches long, that give rise to a central, erect, multi-flowered inflorescence with a free dorsal sepal, united lateral sepals that form into a synsepalum and the labellum is usually sac shaped or like a slipper (*Phrag. lindenii* does NOT have a slipper shaped lip). These spectacular flowers have a variety of rich colors and some species extremely long (36 inches) petals.

Phragmipediums can be grouped into four sections (Cribb, Purver, 2017) and was updated in 2018 by Braem to six sections. A Key was provided by Cribb and Purver for the four sections in their 2017 publications, with a brief descriptive key below for the first four sections:

Section – descriptive key

Micropetalum – Plants relatively small. Leaves relatively thin-textured and broad. Inflorescence with flowers looming successively. Flowers small to large and brightly colored, concolorous, buds covered with multi-cellular hairs. Petals short and broad, more or less oblong to elliptic or oval. Lip lacking side lobes and gibbous hollows at the base. (7 species)

Platypetalum – Inflorescences several-flowered. Flowers with spatulate petals and a staminode with a hairy surface. (2 species)

Lorifolia (Longifolium, Braem) – Plants small to large. Inflorescence with flowers blooming successively. Flowers large. Petals elongate and tapering. Lip with tubercles on the infolded margins of the claw; lip opening spurred or not on the sides. Column with a staminode that is roughly transversely elliptic and usually has a basal margin of dense short hairs that extend onto the lateral margins. (7 species)

Phragmipedium – Inflorescence with flowers blooming simultaneously. Flowers large. Petals elongate, much longer than the lip, tapering and pendent. Lip rim pubescent, claw face ribbed. (6 species)



Phragmipedium caudatum
'Wizard of Oz' AM/AOS
Apr 2015, NS 5.3 x 74.0 cm

Schluckebierium – Consist of only one species, Phragmipedium kovachii. Previous in Section Micropetalum but plant is physically larger than the other species in that section.

Himantopetalum – Three species, plants generally physically smaller than other long petal Phragmipediums.

Generally, you would point scale using the Paphiopedilum point scale.

Table of species (OrchidWiz – Dec 2018 update)

Species marked with a * are used the most in hybridization					Progeny F1/Total	AOS Awards									
Kew Name	Section	Habitat, Country	Temperature	Season		FCC	AM	HCC	JC	AD	AQ	CCE	CCM	CHM	CBR
Phragmipedium andreettae	Micropetalum	Colombia-Ecuador	Warm to hot	Fall	16/22								1		1
Phragmipedium anguloi	Micropetalum	Colombia	Warm to hot	Fall	1/1										0
Phragmipedium besseae *	Micropetalum	Ecuador-Peru	Warm	Spring-Summer	125/682	8	73	39		1	2	2			125
Phragmipedium boissierianum	Longifolium	Ecuador-Peru	Warm to hot	Winter-spring	47/141		4	5				1	2	2	14
Phragmipedium carcinum	Himantopetalum	Bolivia-Brazil	Cool to warm	Summer-Fall	34/64		1	4				4			9
Phragmipedium caudatum	Phragmipedium	Bolivia-Peru	Cool to warm	Spring	51/147	1	41	22			2	16			82
Phragmipedium christiansenianum	Longifolium	Colombia	Warm	Year-round	0/0										0
Phragmipedium dalessandroi	Micropetalum	Ecuador	Cool to warm	Spring	36/103										0
Phragmipedium fischeri	Micropetalum	Colombia-Ecuador	Cool to warm	Year-round	33/150		1	1					1		3
Phragmipedium guianense	Phragmipedium	French Guyana	Warm	Fall	0/0										0
Phragmipedium hirtzii	Longifolium	Columbia-Ecuador	Warm	Year-round	15/27			3						1	4
Phragmipedium humboldtii	Phragmipedium	Mexico-Panama	Cold to cool	Spring	47/129	1	8	2				2	2	2	17
Phragmipedium klotzschianum	Himantopetalum	Venezuela, Guyana, Brazil	Warm	Fall-Spring	13/22				1						1
Phragmipedium kovachii	Schluckenbierium	Peru	Cool	Spring-Summer	71/125	5	10						1		16
Phragmipedium lindenii	Phragmipedium	Venezuela - Ecuador	Warm	Spring-Summer	8/9		1	3				2		2	8
Phragmipedium lindleyanum	Platypetalum	Venezuela-French Guiana	Cool to warm	Winter-summer	36/98		2	2				1		2	7
Phragmipedium longifolium	Longifolium	Costa Rica-Ecuador, Brazil	Warm	Year-round	67/592		12	8			1	9	7	2	39
Phragmipedium pearcei	Himantopetalum	Ecuador-Peru	Cool to warm	Year-round	52/122		4	12			1	7	1	2	27
Phragmipedium ramiroi	Micropetalum				0/0										0
Phragmipedium sargentianum	Platypetalum	Brazil	Warm	Spring-Summer	36/362							2		1	3
Phragmipedium schlimii	Micropetalum	Columbia	Cool to warm	Year-round	67/429		8	7	3		2	9	1	1	31
Phragmipedium vittatum	Longifolium	Brazil	Cool to warm	Winter-spring	9/12			1						1	2
Phragmipedium warszewiczianum	Phragmipedium	Venezuela-Ecuador	Cool to warm	Fall-Summer	47/65	4	15	11				2	1		33
Not Kew recognized															
Phragmipedium richteri	Lorifolia	Peru	Cool to warm	Year-round	29/33		4	4				3	1	1	13
Phragmipedium tetzlaffianum	Lorifolia	Venezuela			5/5								2		2

Key: Cold – 50 to 58F at night; Cold to cool – 50 to 66F at night; Cool – 58 to 66F at night; Cool to warm – 58 to 75F at night; Cool to Hot – 58 to 85F at night; Warm – 66 to 75F at night; Warm to Hot – 66 to 85F at night; Hot – 75 to 85F at night

Even though the genus Phragmipedium has been extensively hybridized, there are species being found and new avenues to be discovered.

Since species reports will be made on most of the species in the above table, the remaining report will be findings from 'trolling' the above table / database (note the above table is NOT showing all of the information collected).

Most total progeny

1. Phrag. besseae, 125 F1 and 682 total progeny
2. Phrag. longifolium, 67 F1 and 592 total progeny
3. Phrag. schlimii, 67 F1 and 429 total progeny
4. Phrag. sargentianum, 36 F1 and 362 total progeny
5. Phrag. Hanne Popow, 65 F1 and 224 total progeny
6. Phrag. Eric Young, 46 F1 and 190 total progeny
7. Phrag. Memoria Dick Clements, 52 F1 and 165 total progeny



Phrag. besseae
 'Fox Valley' FCC/AOS
 Dec 1993, NS 8.1 x 6.2 cm
 125 F1 and 682 total progeny
 125 AOS awards
 (8 FCCs, 73 AMs, 39 HCCs, 1 AQ,
 2 CCEs, 2 CCMs)

These seven grexes (4 species and 3 hybrids) are some of the key building block Phragmipediums.



Phrag. longifolium
 'Esperenze Mejia' AM/AOS
 Aug 2002, NS 15.0 x 10.8 cm
 67 F1 and 592 total progeny
 39 AOS awards
 (12 AMs, 8 HCCs,
 1 CCE, 9 CCMs, 7 CHMs, 2 CBMs)



Phrag. schlimii
 'Penn's View' AM/AOS
 Apr 2018, NS 5.9 x 4.5 cm
 67 F1 and 429 total progeny
 31 AOS awards
 (8 AMs, 7 HCCs, 3 JCs,
 2 CCEs, 9 CCMs, 1 CHMs, 1 CBM)



Phrag. sargentianum
 'Fernbrook' CCM/AOS
 Mar 1986, NS 10.0 cm
 36 F1 and 362 total progeny
 3 AOS awards
 (2 CCMs, 1 CBM)



Phrag. Memoria Dick Clements
 'Flashpoint' FCC/AOS
 Dec 2005, NS 12.8 x 8.8 cm
 (Phrag. sargentianum x Phrag. besseae)
 1992, G. R. Clements
 52 F1 and 165 total progeny
 60 AOS awards
 (2 FCCs, 35 AMs, 17 HCCs, 1 JC,
 5 CCMs)



Phrag. Eric Young
 'Broadwaters' AM/AOS
 Mar 2018, NS 12.3 x 8.9 cm
 (Phrag. besseae x Phrag. longifolium)
 1991, E. Young Orchid Foundation
 46 F1 and 190 total progeny
 35 AOS awards
 (15 AMs, 11 HCCs, 1 JC, 8 CCMs)



Phrag. Hanne Popow
 'Adrienne' FCC/AOS
 Mar 2006, NS 7.5 x 5.8 cm
 (Phrag. besseae x Phrag. schlimii)
 1991, H. Doll
 65 F1 and 224 total progeny
 56 AOS awards
 (2 FCCs, 25 AMs, 25 HCCs,
 1 CCE, 3 CCMs)

Most total awards, AOS awards, AOS Quality Awards

1. Phrag. besseae, 203 awards, 125 AOS awards, 121 AOS quality awards
2. Phrag. Jason Fischer, 172 awards, 103 AOS awards, 102 AOS quality awards
3. Phrag. Don Wimber, 152 awards, 98 AOS awards, 92 AOS quality awards
4. Phrag. caudatum, 139 awards, 82 AOS awards, 64 AOS quality awards
5. Phrag. Grande, 113 awards, 88 AOS awards, 63 AOS quality awards
6. Phrag. Noirmont, 86 awards, 73 AOS awards, 66 AOS quality awards



Phrag. Jason Fischer
 'Zach's Crimson Tide' FCC/AOS
 Jan 2017, NS 9.2 x 6.6 cm
 (Phrag. besseae x Phrag. Mem. Dick Clements)
 1996, Orchids Ltd.
 24 F1 and 42 total progeny
 103 AOS awards
 (19 FCCs, 59 AMs, 24 HCCs, 1 CCM)



Phrag. Don Wimber
 'Martha Helbling Adams' FCC/AOS
 Mar 2004, NS 12.3 x 8.9 cm
 (Phrag. Eric Young x Phrag. besseae)
 1995, E. Young Orchid Foundation
 17 F1 and 23 total progeny
 98 AOS awards
 (1 FCC, 59 AMs, 32 HCCs,
 2 CCEs, 4 CCMs)



Phrag. Noirmont
 'John Ritchie' AM/AOS
 Mar 2013, NS 12.3 x 10.0 cm
 (Phrag. Mem. Dick Clements x
 Phrag. longifolium)
 1997, E. Young Orchid Foundation
 No progeny
 73 AOS awards
 (1 FCC, 45 AMs, 20 HCCs,
 2 CCEs, 5 CCMs)



Phrag. caudatum
 'Wizard of Oz' AM/AOS
 Apr 2015, NS 5.3 x 74.0 cm
 51 F1 and 147 total progeny
 88 AOS awards
 (1 FCC, 41 AMs, 22 HCCs,
 2 CCEs, 16 CCMs)



Phrag. Grande
 'Eva' FCC/AOS
 Sep 2011, NS 12.2 x 35.1 cm
 (Phrag. longifolium x Phrag. humboldtii)
 1881, Veitch
 41 F1 and 61 total progeny
 88 AOS awards
 (2 FCCs, 33 AMs, 27 HCCs, 1 JC,
 2 CCEs, 23 CCMs)

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www.orchidspecies.com

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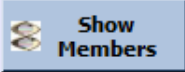
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Interesting Tidbits

The Table below list the intergeneric crosses made with Phragmipedium and the number of cross that exist:

		Orchid Members:	1,086			
		Flowers Per Stem:	3.2			
		Natural Spread:	9.5 cm.			
						
Genus Name: Phragmipedium (Phrag) Composition: Phragmipedium Pronounced: frag-muh-PEE-dee-um (having slipper type lip)						
Phrag Contained in 2 Genera:						
#	Composition	Name	Abbrev.	Members	Flowers	Nat.Spr
2	Paph x Phrag	Phragmipaphium	Phrphm	14	3.0	
2	Cyp x Phrag	Cyphragmipedium	Cgd	1		

As the table above points out, due to the small number of genus in the SubFamily Cypridioideae, there are not many intergeneric genera breeding involving Phragmipedium and what crosses that have been made have not be well received by the public, awards for only one grex, see below:



Phragmipaphium [Phrphm.] Hanes' Magic
 'Bion' AM, AD/AOS
 Oct. 1982, NS 10.1 x 18.4 cm
 (measurements calculated from incomplete
 record, may NOT be correct)
 (Paph. stonei x Phrag. Albopurpureum)
 1983, J. Hanes
 41 F1 and 61 total progeny
 2 AOS awards
 (1 AM, 1 AD)

Species Data Sheet

Phragmipedium caudatum (Lindl.) Rolfe, Orchid Rev. 4: 332 (1896)

[frag-muh-PEE-dee-um kaw-DAY-tum]

Found in Peru and Bolivar, this large sized, is a robust terrestrial, lithophyte, or epiphytic caespitose plant with fan-shaped leaves growing in warm to cool locations in open, fully from exposed grassy slopes to cliff faces in humus soil from 1000-2100 m. (3300 to 6900 ft.). The dark green leaves, 30 to 60 cm (12 to 24 in.) long, are basally imbricating, conduplicate, and leathery, usually 3 to 4 pairs with a sheath. The terminal, sub-erect inflorescences, 2 ft (60 cm) long, supporting 3 to 6 yellow to green long lasting, simultaneously opening flowers just longer than the leaves from winter through summer. The ovate-lanceolate hooded dorsal sepal, 9.0 to 17.0 cm (3.5 to 6.7 in.) long by 2.0 to 3.0 cm (0.8 to 1.2 in.) wide, has somewhat reticulate dark green veins. The ovate hooded synsepal, 10.0 to 12.0 cm (4.0 to 4.7 in.) long by 3.0 to 5.0 cm (1.2 to 2.0 in.) wide, has somewhat reticulate dark green veins. Petals are linear-elongate, 4.4 – 8.0 cm (1.7 – 3.2 in.) x 1.0 – 1.5 cm (0.4 – 0.6 in.), white with green and reddish brown reticulate veins, hanging parallel to lip, twisting, surfaces becoming red-tomentose apically. Lip pitcher like, 5.0 – 7.0 cm (2.0 – 2.8 in.) x 2.0 – 3.0 cm (0.8 – 1.2 in.), yellow – green, opening obovate, the rim yellow – green with a row of dark reddish brown spots to the inside of a distinct rim, inside lip basally white with bottom surface yellow – green with dark reddish brown spots linearly. The staminode broadly trilobed – triangular, yellow – green with dark red lateral lobes.



Phragmipedium caudatum
'Wizard of Oz' AM/AOS
Apr 2015, NS 5.3 x 74.0 cm

Is a member of the Phragmipedium section and point scale using the Paphiopedilum point scale.

Synonyms:

No significant names recently.

Varieties / forms:

Initially all long petal Phragmipediums with a saccate lip were considered either Phragmipedium caudatum or a variety of Phragmipedium caudatum. This has recently, around 2000 to 2017, been changing and the present Kew accepted changes related to the various varieties follows:

f. albertianum – Phrag. humboldtii var. humboldtii (typ.)

var. lindenii – Phragmipedium lindenii

var. roseum – Phrag. humboldtii var. humboldtii (typ.)

var. sanderae – trade name, not 'officially' recognized, pale-green (not albinistic) and small-growing cultivars

var. wallisii – Phrag. warszewiczianum

var. warszewiczianum – Phrag. warszewiczianum

The following variety names are used but are NOT markedly distinct from Phrag. caudatum, Phrag. humboldtii, or Phrag. warszewiczianum species.

var. aureum

var. giganteum,

The following table provides a key to differences between these three similar species as of 2017:

	<u>Phrag. caudatum</u>	<u>Phrag. humboldtii</u>	<u>Phrag. warszewiczianum</u>
Lip	Yellow-green	Glossy chocolate brown	Pink- or white-flushed
Lip orifice – inturned	No	Yes	No
Distribution	Maranon gap South (Peruvian – Colombian border), Peru, Bolivar	Between Darien and Maranon gaps, Venezuela, Ecuador, Colombia	Central America (to Darien gap, ~ border between Panama – Colombia)

Awards:

Due to the confusion associated with the long petal / saccate Phragmipediums, an unknown number of the awards should be associated with either Phrag. humboldtii or Phrag. warszewiczianum. With this caveat the table below are the reported AOS awards and timeframe for Phrag. caudatum:

	FCC	AM	HCC	AQ	JC	CCM	CCE	CHM	CBM	TOTAL
AOS	1	41	22			16	2			10
Year(s) Awarded	1977	1970-2018	1975-2017			1966-2013	2007-2012			

Breeding Characteristics:

The sources that I have readily available does not provide any information on the Breeding characteristics of Phrag. caudatum. There are a total of 147 progeny with Phrag. caudatum parentage, of which 51 are first generation. From looking at the F1 progeny pictures it appears that the overall Phrag. caudatum shape is dominate with color from the other parent enhanced. Longer hanging sepals is a signiature breeding pattern through at least the third generation, although the influence is reduced in each generation.

Phrag. caudatum	Registration decade														Total
	<1890	1890	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010	
Crosses Registered	5	6	4	0	0	0	0	0	0	1	2	21	57	51	147
Awards to Crosses Regtr	55	28	1	0	0	0	0	0	0	21	4	121	39	14	283

As shown in the above table there are 147 Phragmipedium caudatum progeny, through four generations, with a total of 283 awards. There was an early interest in breeding with Phrag. caudatum that subsided from the 1900s until late 1970-1980. This increased interest in breeding Phrag. caudatum corresponds mostly with the discovery of several new species (besseae 1981, hirtzii 1988, dalessandroi 1996, fischeri 1996, kovachii 2002, etc.) but also possibly with the moving of some species into/up in Phragmipedium (pearcei 1975, humboldtii 1999, etc.).

'Major' Hybrids, most progeny:

Phragmipedium Leslie Garay – (Phrag. caudatum x Phrag. longifolium), 2012, O. Gruss, 19 F1 and 53 total progeny, no AOS awards. NOTE: Apparently this cross was made prior to 1992 (year of first registered offspring) with 17 first generation crosses made between 1992 and 2012. All of the F1 crosses that were made in this timeframe were registered by Eric Young Orchid Foundation. Part of this confusion is probably related to the confusion related to Phrag. caudatum, Phrag. warszewiczianum, and Phrag. humboldtii (based on AOS awards to the early crosses, such as Phrag. Mont Fallu 'Itsa Miracle', were registered with a humboldtii parent, Phrag. Grande instead of Phrag. Leslie Garay). Some of the major progeny are:

Phrag. Les Dirouilles, see below; **Phrag. Mont Fallu** (Phrag. longifolium x Phrag. Leslie Garay), 1992, E. Young O. F., 7 F1 and 9 total progeny, 14 AOS awards (7 AMs, 7 HCCs); **Phrag. Fliquet** (Phrag. Leslie Garay x Phrag. Memoria Dick Clements), 1999, E. Young O. F., 1 F1 progeny, 12 AOS awards (7 AMs, 4 HCCs, 1 CCM); **Phrag. Bouley Bay** (Phrag. Eric Young x Phrag. Leslie Garay), 1999, E. Young O. F., 3 F1 progeny, 10 AOS awards (6 AMs, 4 HCCs).



Phrag. Leslie Garay



Phrag. Mont Fallu
'Itsa Miracle' AM/AOS
July 2018, NS 10.5 x 34.0 cm



Phrag. Fliquet
'Briscoe Pond' AM/AOS
Jun 2018, NS 17.7 x 17.8 cm



Phrag. Bouley Bay
'Poe Creek' AM/AOS
May 2018, NS 18.0 x 25.0 cm



Phragmipedium Les Dirouilles (Phrag. Sorcerer's Apprentice x Phrag. Leslie Gray), 1999, E. Young O. F., 15 F1 and 16 total progeny, 18 AOS awards (12 AMs, 6 HCCs). No major progeny.

Phragmipedium Waunakee

Wonder (Phrag. Belle Hougue Point x Phrag. Barbara LeAnn), 2005, Orchids by Ackers, 8 F1 progeny, 1 HCC/AOS award. No major progeny.

Phrag. Waunakee Wonder
'High Point' HCC/AOS
Apr 2005, NS 16.6 x 13.6 cm



Phrag. Les Dirouilles
'Eagle' AM/AOS
Nov 2018, NS 12.5 x 22.9 cm



Phrag. Schroderae
'Kepley Rose' AM/AOS
Jul 2005, NS 11.0 x 9.0 cm

'Major' Hybrids, most awards (not described above):

Phragmipedium Schroderae (Phrag. caudatum x Phrag. Sedenii), 1882, Veitch, 3 F1 progeny, 29 AOS awards (13 AMs, 9 HCCs, 7 CCMs). No major progeny.

Phragmipedium Court Jester (Phrag. caudatum x Phrag. boissierianum), 1977, Stewart Inc., 1 F1 and 2 total progeny, 16 AOS awards (9 AMs, 7 HCCs). No major progeny.

Phrag. Court Jester
'Paramount's Flora Longpre' AM/AOS
Sep 2002, NS 6.9 x 38.5 cm



Phragmipedium Belle Hougue Point (Phrag. Belle Hougue Point x Phrag. caudatum), 1997, E. Young O. F., 1 F1 and 9 total progeny, 17 AOS awards (11 AMs, 4 HCCs, 2 CCMs). One major progeny: Phrag. Waunakee Wonder, see above.

Phragmipedium Tall Tails (Phrag. caudatum x Phrag. wallisii), 1999, M. LeDoux, 2 F1 progeny, 15 AOS awards (13 AMs, 1 CCE, 1 CCM). No major progeny.



Phrag. Belle Hougue Point
'Red Dragon' AM/AOS
Apr 2016, NS 7.0 x 20.0 cm



Phrag. Tall Tails
'Huntington's Tresses' AM/AOS
Apr 2017, NS 4.5 x 71.0 cm

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www.orchidspecies.com

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Orchids, Sep 2009, *Phragmipedium caudatum – The Species and Its Hybrids*, Gruss, O.; Rohrl, H.; Vol. 78, pp. 530-541

Species Data Sheet - *Phragmipedium x richteri*

Roeth & O.Gruss, *Orchidee (Hamburg)* 45(3): back cover (1994)

[frag-muh-PEE-dee-um RICK-tur-eye?]

The status of *Phragmipedium x richteri* appears to be personal with many maintaining that it is a species, since it breeds true, and others that it is a natural hybrid between *Phrag. pearcii* x *Phrag. boisserianum*. Per the Kew Monocat list, it is a natural hybrid and that is view that this article will take.

It is found in northern Peru at an elevation of 600 m. (2000 ft.) on wet rocks by or in fast-flowing streams in a montane rain forest. A single plant will typically consist of up to 10-leaves, up to 65 cm (26 in.) having an erect, sometimes branched, inflorescence of successive blooming flowers, with a typically 11 x 11 cm (4.2 x 4.2 in.) natural spread. The sepals and petals are yellowish green with darker veins, petals with a purple margin, lip yellow-green with darker green veins and a pale rim, staminode triangular, green with the basal margin densely short purple-black hair.

It will flower throughout the year. Each flower stays open for about four weeks, with the next flower opening as the previous one declines.

Point scale using the *Paphiopedilum* point scale.

Synonyms:

Phragmipedium richteri

Phragmipedium amazonicum (trade name)

Phragmipedium boisserianum var. *minor*

Phragmipedium peruvianum (trade name)

Phragmipedium topperi (trade name)

The equivalent mad-made hybrid is:

Phragmipedium Taras (*Phrag. boisserianum* x *Phrag. pearcii*)

Varieties / forms:

None.

Awards:

The table below are the AOS awards and timeframe for

Phragmipedium x richteri (The man-made *Phragmipedium Taras* has not received any awards):

	FCC	AM	HCC	AQ	JC	CCM	CCE	CHM	CBR	TOTAL
AOS		4	4			3	1		1	13
Year(s) Awarded		1999-2015	1998-2018			2000-2013	1997		1997	

Breeding Characteristics:

The sources that I have readily available does not provide any information on the Breeding characteristics of *Phrag. caudatum*. There are a total of 33 progeny with *Phrag. x richteri* perentage and 15 with *Phrag. Taras*



Phragmipedium x richteri
'Li' AM/AOS
Mar 2015, NS 11.7 x 11.6 cm



Phragmipedium Taras
(*Phrag. boisserianum* x *Phrag. pearcii*)
Man-made hybrid

(roughly half with the same grex), of which 29 of Phrag. x richteri and all of Pharg. Taras are first generation. From looking at the F1 progeny pictures it appears that the Phrag. richteri tries to twist the petals, petal droop, and an up right dorsal sepal are dominant.

Phrag. x richteri	Registration decade				
	<1980	1990	2000	2010	Total
Crosses Registered	0	8	14	11	33
Awards to Crosses Regtr	0	22	5	1	28
Phrag. Taras					
Crosses Registered	0	0	2	13	15
Awards to Crosses Regtr	0	0	1	2	3

As shown in the above table there are a total of 48 progeny for both Phragmipedium x richteri and Phragmipedium Taras, through two generations, with a total of 31 awards. There was an early interest in breeding with Phrag. x richteri that appears to be subsiding and maybe Phrag. Taras picking up (most are from one hybridizer so many not be the case).

‘Major’ Hybrids, Phrag. x richteri progeny:

Phragmipedium Wossen (Phrag. richteri x Phrag. schlimii), 1994, F. Glanz, no progeny, 3 AM/AOS awards.

Phrag. Franz Glanz (Phrag. richteri x Phrag. besseae), 1995, F. Glanz, 2 F1 progeny, 2 HCC/AOS awards.

Phrag. Predator (Phrag. richteri x Phrag. humboldtii), 1999, J. L. Fischer, 2 F1 progeny, 3 AM/AOS awards.

Phrag. Achentel (Phrag. Hanne Popow x Phrag. richteri, 1998, F. Glanz, no progeny, 3 AOS awards (1 AMs, 2 HCCs)



Phrag. Wossen
‘Was One’ AM/AOS
Feb 2016, NS 9.0 x 7.6 cm



Phrag. Predator
‘Pikes Peak’ AM/AOS
May 2011, NS 8.1 x 33.0 cm



Phrag. Franz Glanz
‘Dallas Beauty’ HCC/AOS
Nov 2016, NS 10.9 x 8.0 cm



Phrag. Achentel
‘Coon Creek’ AM/AOS
Feb 2017, NS 6.7 x 10.0 cm



'Major' Hybrids, Phrag.

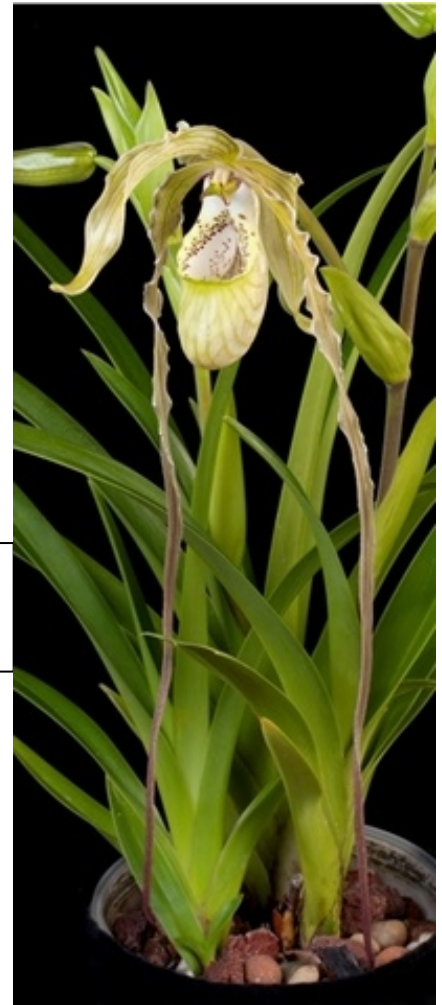
Taras progeny:

Phragmipedium Trudy Taylor (Phrag. Taras x Phrag. caudatum), 2010, C. Taylor, no progeny, 2 AM/AOS awards.

Phragmipedium Karina's Joy (Phrag. Grande x Phrag. Tara), 2008, F. Schomburg, no progeny, 1 HCC/AOS award.

Phrag. Trudy Taylor
'Muir Life' AM/AOS
Mar 2013, NS 6.7 x 26.5 cm

Phrag. Karina's Joy
'Tymara' HCC/AOS
Oct 2007, NS 8.6 x 31.2 cm



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Award Descriptions (June 2018)



Phragmipedium Dragon's Creamsicle – Quality Award Description

(Phrag. besseae x Phrag. Mont Fallu)

Two nodding flowers on one erect inflorescence; dorsal sepal cream, lightly blush dark magenta except marginally, erect, slightly recurved; synsepal cream; petals widely drooping, lanceolate, cream heavily overlaid distal three-quarters dark magenta, edges recurved; pouch cream overlaid dark magenta, rim creamy yellow, interior spotted dark magenta; column and staminode creamy yellow lightly spotted dark

magenta; substance firm; texture matte.

Phragmipedium Francheville – Quality Award Description

(Phrag. Leslie Garay x Phrag. Jersey)

Two slightly cupped concolor scarlet stellate flowers on one erect inflorescence; dorsal sepal undulate, margin recurved; petals gracefully arched down, slightly undulate; pouch scarlet, yellow internally some scarlet spots; staminode scarlet; column yellow; anther cap white; substance firm; texture velvety.



Phragmipedium Green Dragon – Cultural Award Description

(Phrag. Grande x Phrag. Court Jester)

Twenty-one hooded flowers and four buds on six erect inflorescences presented on a robust plant with blemish-free light-green foliage, 27 growths in a 12 inch [30 cm] plastic pot in fine bark mix; dorsal sepal and synsepal cream, overlaid pale green, darker green venation, undulate; petals lime green, cream basally becoming cider distally, slightly twisted, finely hirsute; pouch yellow green, white internally with dark cider spots; staminode pale green overlaid cider; substance firm; texture waxy.



Phragmipedium Wossner Twist – Quality Award Description

(Phrag. richteri x Phrag. caudatum)

Five hooded flowers on one inflorescence; dorsal sepal and synsepal yellow green, venation light mahogany brown, recurved, undulate; sepals yellow green basally, mahogany brown marginally, mahogany brown distally; pouch yellow green, venation brown, rim pale yellow, inside white, spotted mahogany brown; staminode yellow green, mahogany brown marginal hirsute; substance firm; texture matte.



Phragmipedium Wossner Pumuckl – Quality Award Description

(Phrag. Wossner Supergrande x Phrag. richteri)

Three flowers and one bud on one inflorescence; dorsal sepal yellow green, venation darker yellow green, backside mahogany venation, recurved, undulate; petals yellow green basally, margins mahogany, mahogany distally; pouch yellow green, crimson venation, overlaid crimson distally, rim yellow green, interior white spotted mahogany; staminode yellow green, mahogany hirsute distally; substance firm; texture matte.