

The Genus Tolumnia [Tolu.]

Raf., Fl. Tellur. 2: 101 (1837)

Type: *Tolumnia pulchella*

[tuh-LUM-nee-ah pul-Kel-la]

Thirty-one (twenty-seven species and four natural hybrids) small sympodial mostly epiphytes found at low to upper elevation, oak-pine forest, woodland, grasslands and mangroves throughout West Indies, Florida, Mexico to Guatemala and northern South America on twigs. The short, leafy stems (pseudobulbs reduced or absent) along a more or less elongated creeping / climbing rhizome with overlapping 'equitant', flattened, fleshy to leathery channeled leaves that are three sided (usually triangular shaped) and arranged in a loose fan shape. The leaves and leaf arrangement are like no other oncidiums. They have an arching, few-flowered inflorescences. The flowers are flat, showy, and disproportionately large for the size of the plant ranging from bright yellow, off-white, pink to purple, and sometimes with spotted segments. The sepals are smaller than the petals with the



lateral sepals more or less united and held behind the lip. The large, trilobed or four-lobed lip has small side lobes and an entire or notched midlobe with a prominent basal callus.

They are best grown under intermediate to hot conditions mounted on small twigs, treefern or in small pots and allowed dried out completely.



Tolumnia xpulchella
'O'Whimsy' AM/AOS
Apr 2004, 3.0 x 3.4 cm
81 flwrs, 0 Buds, 8 Inflors.

Generally, you would point scale using the Miltonia or General point scale.

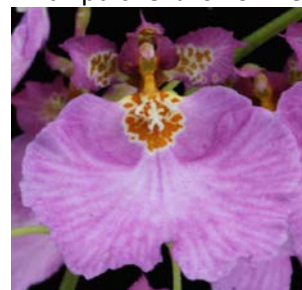
Interesting Tolumnia fact 1: The genus Tolumnia was established in 1837 by C. S. Rafinesque with *Tolumnia pulchella* as the sole species. But since it had already been describe by Hooker in 1827, the new genus was not widely accepted. Around 1985, the International Committee for Spermatophyta in Taxon ruled that the type species for *Oncidium* should be *Oncidium altissimum* instead of *Oncidium variegatum*. After this ruling, in 1986, Braem resurrected Tolumnia as a genus for the group popularly called 'equitant' or 'variegata' oncidiums. The 'equitant' oncidiums are rather distinct from other oncidiums in their habit, pollinarium, breeding behaviour and chromosome numbers.

Interesting Tolumnia fact 2: In a 2019 paper by Ruben P. Saulea and Claude W. Hamilton in the online journal 'New World Orchidaceae – Nomenclatural Notes' provides scientific evidence that *Tolumnia pulchella* is a natural hybrid between *Tolumnia guttata* and *Tolumnia hamiltonii*. This has been accepted by Kew. I contact Kew in regards to whether or not the type species for Tolumnia would change since *Tolumnia xpulchella* is now recognized as a natural hybrid. The response from Kew, Rafael Govaerts, was "The type never changes, it does not matter if it is a nothospecies [a natural hybrid]." Pictures to the right are from the report.



Tolu. guttata

X



Tolu. hamiltonii

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Tolu. xpulchella

Table of species

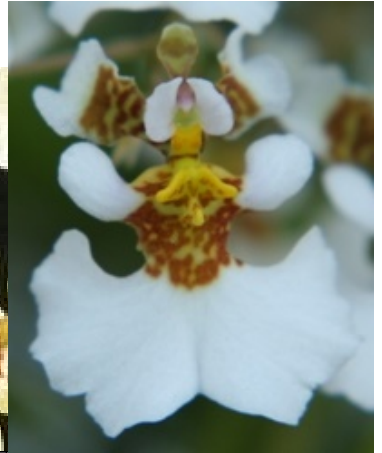
Below is a table of all the species with progeny and awards information. Following the table are pictures of the top three (a total of five species are pictured, with *Tolumnia xpulchella* pictured above) in both progeny and awards.

* Building Block			Progeny	AOS Awards										
Name	Year	Climate	F1/Total	FCC	AM	HCC	JC	AD	AQ	CCE	CCM	CHM	CBR	Total
<i>Tolumnia acunae</i>	2000		0/0											0
<i>Tolumnia</i> × <i>ann-hadderae</i>	1972		0/0											0
<i>Tolumnia arizajuliana</i>	1997	Warm	4/4										1	1
<i>Tolumnia bahamensis</i>	1986	Cool to Warm	4/7			1					3			4
<i>Tolumnia calochila</i>	1986	Warm to Hot	12/32		5	2	2				7		1	17
<i>Tolumnia caribensis</i>	1986		1/1											0
<i>Tolumnia compressicaulis</i>	1986	Cool to Warm	9/13								1		1	2
<i>Tolumnia</i> × <i>domingensis</i>	1969		0/0											0
<i>Tolumnia</i> × <i>floride-phillipsiae</i>	1967		0/0											0
<i>Tolumnia gauntlettii</i>	1994	Warm to Hot	3/7										1	1
<i>Tolumnia guianensis</i> *	1986	Cool to Warm	60/1528		3	4					2	1	2	12
<i>Tolumnia guibertiana</i>	1986	Warm to Hot	1/6										1	1
<i>Tolumnia gundlachii</i>	2007	Cool to Hot	0/0										1	1
<i>Tolumnia guttata</i>	1994	Warm	7/802		1						1	1	1	4
<i>Tolumnia haitiensis</i>	1986	Warm to Hot	13/499											0
<i>Tolumnia hamiltonii</i>	2019		0/0											0
<i>Tolumnia hawkesiana</i>	1986	Warm	0/0											0
<i>Tolumnia henekenii</i> *	1994	Warm to Hot	45/1431		1	1					5			7
<i>Tolumnia lemoniana</i>	1986	Hot	3/4											0
<i>Tolumnia lucayana</i>	1986	Cool to Warm	5/13										1	1
<i>Tolumnia prionochila</i>	1986	Hot	10/11									2		2
<i>Tolumnia</i> × <i>pulchella</i> *	1836	Hot	119/1842	1	9	9	1		1		2			23
<i>Tolumnia quadriloba</i>	1986	Warm	7/38									1	1	2
<i>Tolumnia sasseri</i>	1986	Hot	0/0									1	1	2
<i>Tolumnia scandens</i>	1986	Cool	5/7								1			1
<i>Tolumnia sylvestris</i>	1986	Cool to Warm	4/6			1				1	4		1	7
<i>Tolumnia triquetra</i> *	1994	Warm to Hot	104/1897		5	3					3			11
<i>Tolumnia tuerckheimii</i>	1986	Cold to Cool	0/0										1	1
<i>Tolumnia urophylla</i> *	1986	Hot	13/1552			1				1	2			4
<i>Tolumnia usneoides</i>	1986		0/0											0
<i>Tolumnia variegata</i>	1986	Cool to Warm	31/683		2	4	1			2	11	2	3	25

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

Table of characteristics

Species	Breeding Traits
<i>Tolu. triquetra</i>	Short, many-branched, continuously blooming inflorescences, red colored flowers, heart-shaped lip, spear-shaped petals, minimum smooth crest, introduces spots in hybrids, oval shaped flowers
<i>Tolu. x pulchella</i>	Purple flower color, shape is dominate, flower size
<i>Tolu. urophylla</i>	Dominate parent, vigorous growth, climbing rhizomes, 3 foot inflorescences, plantlets on stems, large yellow flowers, broad lower lip
<i>Tolu. guianensis</i>	Relatively large flowers, few-flowered, full petals almost duplicate the lip,
<i>Tolu. henekenii</i>	Unique bumblebee-shaped flowers, few flowered, long inflorescences, good distribution of flowers, excellent source of red flowers, elongated lip is dominant for several generations, oval shaped flowers



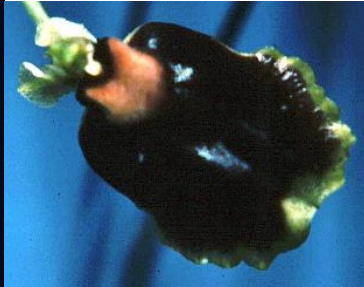
Tolumnia calochila
 'Byron' AM/AOS
 Apr 2018, NS 2.2 x 3.0 cm
 4 Flwrs, 0 Bud, 1 Inflr

Tolumnia triquetra
 'Sundance' AM/AOS
 Feb 1992, NS 2.8 cm
 10 Flwrs, 10 Buds, 1 Inflr

Tolumnia urophylla
 'Mem. Ike Nelson' HCC/AOS
 Apr 1982, NS 2.2 cm
 1474 Flwrs, 0 Buds, 183 Inflrs

Tolumnia variegata
 'Mary's Ida' AM/AOS
 Apr 2017, NS 2.0 x 2.1 cm
 77 Flwrs, 1 Bud, 6 Inflrs

Additional Key Breeding Species



Tolumnia guianensis
 'Katharine Jamison' HCC/AOS
 Apr 2014, NS 2.0 x 1.9 cm
 11 Flwrs, 8 Bud, 2 Inflrs

Tolumnia henekenii
 'Tsunami' HCC/AOS
 May 1986, NS 0.6 x 2.2 cm
 31 Flwrs, 26 Buds, 10 Inflr

Tolumnia guttata

Tolumnia haitiensis

Breeding

Virtual all of the Tolumnia breeding has been done with the nine species pictured above. The Moirs have written a book sharing their knowledge / experience in breeding Tolumnias (Variegata Oncidiums). There is no way I can share even a drop of their knowledge in this short report, I will therefor focus on some key hybrids finishing up with some recently registered and awarded crosses.

Key Primary Hybrids

The four key primary hybrids were all made by W. W. G. Moir between 1957 to 1959. The smallest number of total progeny for any one grex was 1232.

Tolumnia Golden Glow (Tolu. triquetra x Tolu. urophylla), 1957, W. W. G. Moir, 11 F1



Tolumnia Tiny Tim
 'Sundance' HCC/AOS
 Jan 2001, NS 3.0 x 3.0 cm
 22 Flwrs, 0 Buds, 2 Inflrs

and 1526 total progeny, no awards. Very successful parent producing many vigorous, floriferous progeny that inturn were good breeders. It is dominate for large yellow flowers, large lip, vigorous growth, and production of plantlets on the flower stem inherited from Tolumnia urophyllum. The shorter inflorescence, red-colored mask, increased flower production, and lateral branching are from Tolu. triquetrum parent.

Tolumnia Tiny Tim (Tolu. triquetra x Tolu. guianensis), 1957, W. W. G. Moir, 35 F1 and 1370 total progeny, 4 AOS awards (1 AM, 2 HCC, 1 AQ). Several remakes using different color variations of Tolumnia guianensis and sibling-crossing the best clones of Tolumnia Tiny Tim. The results had a dramatic effect on the look of Tolumnias – SPOTS, and lots of them.



Tolumnia Catherine Wilson
 'Lorrie Belle' AM/AOS
 Mar 2001, NS 3.1x 4.1 cm
 13 Flwrs, 2 Buds, 1 Inflrs

Tolumnia Delight (Tolu. pulchella x Tolu. henekenii), 1958, W. W. G. Moir, 22 F1 and 1275 total progeny, 4 AOS awards (3 AMs, 1 HCC). Parent used to intensify the reds and purples in its progeny.

Tolumnia Catherine Wilson (Tolu. triquetra x Tolu. pulchella), 1959, W. W. G. Moir, 45 F1 and 1232 total progeny, 5 AOS awards (2 AMs, 1 HCC, 1 JC, 1 CCM). Along this line of breeding it has been observed that as the complexity of the hybrids develop, so too, does the variability in color of the progeny as well as fewer and smaller flowers as well as an increase in sterility. These issues can be addressed with a cross back to a species or primary hybrid as the best solution.



Tolumnia Golden Glow
 'Best'



Tolumnia Delight
 'Eichenfels' AM/AOS
 Apr 1974, NS ? x 3.8 cm
 7 Flwrs, 0 Buds, 1 Inflr

Key Hybrids, most F1 progeny

The five hybrids were selected based on number of F1 progeny.

Tolumnia Stanley Smith (Tolu. Red Belt x Tolu. pulchella), 1967, W. W. G. Moir, 44 F1 and 1290 total progeny, 6 AOS awards (3 AMs, 1 HCC, 2 CCMs). Tolumnia Golden Glow line.

Tolumnia Golden Sunset (Tolu. Stanley Smith x Tolu. Tiny Tim), 1975, R. Perreira, 139 F1 and 967 total progeny, 58 AOS awards (20 AMs, 31 HCCs, 1 JC, 1 CCE, 5 CCMs). By far the most awarded Tolumnia grex.

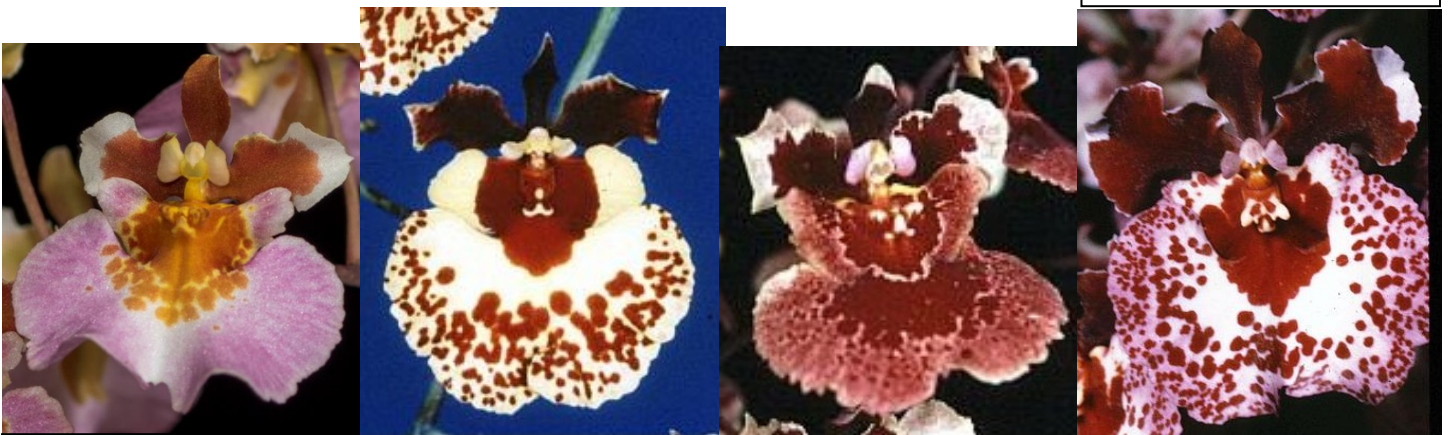
Tolumnia Robsan (Tolu. Golden Sunset x Tolu. Susan Perreira), 1980, R. Perreira, 62 F1 and 279 total progeny, 18 AOS awards (8 AMs, 10 HCCs).

Tolumnia Irene Gleason (Tolu. Golden Sunset x Tolu. Linda), 1981, Jon Oka, 46 F1 and 405 total progeny, 11 AOS awards (3 AMs, 6 HCCs, 2 CCMs).

Tolumnia Sniffen (Tolu. Golden Sunset x Tolu. Irene Gleason), 1985, Jon Oka, 46 F1 and 269 total progeny, 9 AOS Awards (1 FCC, 4 AMs, 3 HCCs, 1 AQ).



Tolumnia Stanley Smith
'David Kramer' AM/AOS
Mar 1980, NS 2.6 cm
15 Flwrs, 19 Buds, 4 Inflrs



Tolumnia Golden Sunset
'Sun Dew' AM/AOS
Apr 2019, NS 3.0 cm
14 Flwrs, 13 Buds, 2 Inflrs

Tolumnia Robsan
'Orchid World' AM/AOS
Dec 1986, NS 3.0 cm
10 Flwrs, 7 Buds, 1 Inflr

Tolumnia Irene Gleason
'Sunbrunt' AM/AOS
Apr 1981, NS 3.0 cm
9 Flwrs, 0 Buds, 1 Inflr

Tolumnia Sniffen
'Jennifer Dauro' FCC/AOS
Mar 1985, NS 3.2 cm
10 Flwrs, 6 Buds, 1 Inflr

Key Hybrids, most awards (not mentioned prior)

The four hybrids were selected based on total number of awards, but not mentioned earlier in this section.

Tolumnia Tom Wilson (Tolu. Pink Panther x Tolu. Passionata Red), 1985, R. Perreira, 16 F1 and 26 total progeny, 16 AOS awards (9 AMs, 7 HCCs).

Tolumnia Memoria Ralph Yagi (Tolu. Sniffen x Tolu. Irene Gleason), 1989, K. Oka, 28 F1 and 141 total progeny, 19 AOS awards (6 AMs, 11 HCCs, 1 CCE, 1 CCM).

Tolumnia Kyelle's Dream (Tolu. Hawaiian Gold x Tolu. Kyelle's Classic), 1999, Stephen Waters, 11 F1 and 34 total progeny, no AOS awards (all awards are Australian)

Tolumnia Jairak Rainbow (Tolu. Tsku Vanessa x Tolu. Catherine Wilson), 2004, K. Somboonphon, 7 F1 and 18 total progeny, 14 AOS awards (6 AMs, 4 HCCs, 3 CCMs).

			
<p>Tolumnia Tom Wilson 'Betts' AM/AOS Feb 1996, NS 3.0 x 3.5 cm 30 Flwrs, 0 Buds, 3 Inflrs</p>	<p>Tolu. Memoria Ralph Yagi 'Libby Bowers' AM/AOS Apr 2006, NS 2.8 x 3.7 cm 106 Flwrs, 2 Buds, 2 Inflr</p>	<p>Tolumnia Kyelle's Dream 'Pink Ballerina' HCC/AOC Oct 2012, NS 3.0 x 3.4 cm 17 Flwrs, 8 Buds, 2 Inflr</p>	<p>Tolumnia Jairak Rainbow 'Plum Pretty' AM/AOS May 2018, NS 2.7 x 3.3 cm 163 Flwrs, 0 Buds, 18 Inflrs</p>

Most recently registered and awarded Hybrids

Tolumnia Walnut Valley Queen (Tolu. Calypso Queen x Tolu. Walnut Valley), 2019, Rinke & Thompson, no progeny, 9 AOS awards (6 AMs, 3 HCCs).

Tolumnia Volcano Wave (Tolu. Wave Dancer x Tolu. Genting Volcano), 2018, S. Wood, no progeny, 3 AOS awards (2 AMs, 1 HCC).

Tolumnia Summer Sunset (Tolu. Kitty Crocker x Tolu. Red Spirit), 2018, Orchid Trail, no progeny, 1 AM/AOS award.

Tolumnia SIO's June Marie (Tolu. Buck Hollow x Tolu. Anita), 2018, Sky Island, no progeny, 2 AOS awards (1 FCC, 1 AM).

Tolumnia Sarah's Stunner (Tolu. Lonesome Reef x Tolu. Sundown Reef), 2018, Woodland, no progeny, 14 AOS awards (6 AMs, 4 HCCs, 3 CCMs).



Tolu. Walnut Valley Queen
'M & B Best Pink' AM/AOS
Mar 2022, NS 4.1 x 4.5 cm
17 Flwrs, 54 Buds, 2 Inflrs



Tolumnia Volcano Wave
'Martha Biondi' AM/AOS
Oct 2019, NS 3.5 x 3.9 cm
24 Flwrs, 4 Buds, 1 Inflr



Tolumnia Summer Sunset
'Maui Honeymoon' AM/AOS
Mar 2017, NS 3.2 x 3.8 cm
8 Flwrs, 23 Buds, 1 Inflr



Tolu. SIO's June Marie
'Oceanview' FCC/AOS
Jul 2018, NS 3.5 x 3.8 cm
15 Flwrs, 0 Buds, 1 Inflr



Tolumnia Sarah's Stunner
'Atomic Apricot' HCC/AOS
Apr 2018, NS 3.3 x 3.9 cm
6 Flwrs, 1 Buds, 1 Inflr

Intergeneric Breeding

Tolumnia intergeneric breeding was best summed up by W. W. C. Moir:

“But nowhere in orchid breeding is there as much wasted effort as in trying to cross the species and hybrids of the *Variiegata* [Tolumnia] into other *Oncidium* or into intergenerics of the *Oncidiinae*. If they do cross, they lose their *Variiegata* identity entirely, since they are completely dominated by the characteristics of the other plant.”

One might say that *Rodrumnia* is the exception, but I would counter that it took 35 years and four generations of breeding with Tolumnia to obtain a hybrid that was widely used. With *Rodriguezia* five to six generations removed it is almost safe to say that these are Tolumnia hybrids.

A partial table of attempts at intergeneric breeding is shown below, and further supports the difficulty in creating Tolumnia intergeneric hybrids. A report on *Rodrumnia* was made in the prior section and will not be repeated here.

Tolu Contained in 32 Genera:						
#	Composition	Name	Abbrev.	Members	Flowers	Nat.Spr
2	Rdza x Tolu	Rodrumnia	Rrm	336	13.1	3.1
2	Onc x Tolu	Oncidumnia	Ocd	52	25.9	2.6
2	Gom x Tolu	Golumnia	Glm	50	11.6	3.5
2	Tolu x Zel	Zelemnia	Zlm	27	13.9	2.7
3	Gom x Rdgza x Tolu	Ilonara	Ilo	19	13.6	3.1
2	Comp x Tolu	Comparumnia	Cmr	16	14.5	3.3
3	Gom x Onc x Tolu	Gomcidumnia	Gcn	14	7.6	3.4
2	Tolu x Trt	Tolucentrum	Tun	11	12.0	2.8
3	Rdza x Tolu x Zel	Zelumguezia	Zgz	8	11.6	3.4
2	Ercn x Tolu	Eryumnia	Eyn	5		
2	Lchs x Tolu	Leochilumnia	Llm	5		
3	Gom x Tolu x Zel	Gotokoa	Gtk	5	10.7	3.7
2	Inps x Tolu	Ionumnia	Inm	4		
3	Comp x Rdza x Tolu	Tolguezzitia	Tgz	3		
4	Gom x Lchs x Rdza x Tolu	Komarovara	Kmv	3		
2	Brs x Tolu	Tolassia	Tos	2		

Intergeneric Hybrids

Rodrumnia (Rodríguezia x Tolumnia) [Rrm.]



Rodrumnia Spunky
 'Spots' AM/AOS
 Apr 2012, NS 3.4 x 3.6 cm
 58 Flwrs, 2 Buds, 4 Inflr
 (Rrm. Just Dandy x
 Tolu. Kathleen Oka)
 Puanani, 1998
 23 F1 and 55 total progeny
 8 AOS awards (4 AMs, 4 HCCs)
 Rdza. 6th gen., 2 nodes, 4.6%

Rodrumnia Phyllis
 'Roman Holiday' AM/AOS
 Jan 1988, NS 2.9 x 3.4 cm
 9 Flwrs, 0 Buds, 1 Inflr
 (Rrm. Beauty Spots x
 Tolu. Phyllis Hetfield)
 W.W.G.Moir, 1977
 14 F1 and 296 total progeny
 5 AOS awards (3 AMs, 2 HCCs)
 Rdza. 3rd gen., 1 nodes, 25%

Rrm. Orchidom Valentine
 'Sentinel's Astonishing Red'
 HCC/AOS
 May 2013, NS 3.0 x 3.5 cm
 26 Flwrs, 0 Buds, 2 Inflr
 (Rrm. Orchidom Red Love x
 Tolu. Aleka)
 W. Savage, 2007
 3 F1 progeny
 18 AOS awards (7 AMs,
 7 HCCs, 1 JC, 1 AQ, 2 CCMs)
 Rdza. 7th gen., 1 node, 1.6%

Rrm. Orchidom Dancer
 'Bright Dawn' AM/AOS
 Apr 2005, NS 3.8 x 4.0 cm
 26 Flwrs, 9 Buds, 2 Inflr
 (Tolu. Fan Dancer x
 Rrm. Kone's Good Choice)
 M. Savage, 2002
 6 F1 and 8 total progeny
 10 AOS awards
 (2 AMs, 7 HCCs, 1 AD)
 Rdza. 6th gen., 1 node, 3.2%

In below intergeneric most recent registration / award in parenthesis.

Oncidumnia [Ocd.] (Oncidium x Tolumnia), 52 grexes (2018), 3 awardees (1990)

Golumnia [Glm.] (Gomesa x Tolumnia), 50 grexes (2013), 15 awardees (2013)

Zelemnia [Zlm.] (Tolumnia x Zelenkoa), 27 grexes (2014), 32 awardees (2018)

Ilonara [Ilo.] (Gomesa x Rodriguezia x Tolumnia), 19 grexes (2020), 6 awardees (2015)



<p>Oncidumnia Violetta 'Sonoma' AM/AOS June 1990, NS 3.0 x 4.0 cm 54 Flwrs, 4 Buds, 1 Inflr (Tolumnia Aurora x Oncidium Honolulu) Petite Plaisance, 1990 No progeny 1 AM/AOS award</p>	<p>Golumnia Orchidom Macrojoy 'Owen' AM/AOS Mar 2013, NS 3.9 x 4.1 cm 36 Flwrs, 29 Buds, 4 Inflrs (Tolumnia Alameda Joy x Gomesa macropetala) W. Savage, 2013 No progeny 1 AM/AOS awards</p>	<p>Zelemnia Barbars Blush 'Cat's Paw Confusion' AM/AOS Feb 2005, NS 3.0 x 3.6 cm 10 Flwrs, 28 Buds, 4 Inflrs (Tolumnia Good Show x Zelemnia Trixie) O. Kirsch, 1970 5 F1 and 12 total progeny 4 AOS awards (2 AMs, 1 HCC, 1 CCM)</p>	<p>Ilonar Abigail Dancing 'Rusty Glamour' HCC/AOS Mar 2008, NS 3.7 x 3.6 cm 13 Flwrs, 10 Buds, 2 Inflrs (Ilonar Chantilly Mist x Rodrumnia Spring Bouquet) T. Kosaki, 2009 No progeny 1 HCC/AOS award</p>
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BUILDING BLOCK DATA

Tolumnia [Tolu.] x pulchella (Hook.) Raf., Fl. Tellur. 2: 101 (1837) [tuh-LUM-nee-ah pul-KEL-la]

Tolumnia x pulchella is the type species for Tolumnia. It is a miniature, fan shaped, warm to cool growing epiphyte with very short, erect stems. The leaves are fleshy, bilaterally flattened, channeled on the upper side, lanceolate, falcate, acute. The wiry erect inflorescence, to 20 inches (50 cm) long, that can have up to 20 showy flowers occurring in the spring and summer. The plants are native to Jamaica where it is found on small trees in humid forests in bright light and high air movement at elevations of 1000 to 3300 feet (300 to 1000 meters).

This species needs to be mounted on cork in bright light, with warm to cool temperatures, high humidity, good air circulation and a complete drying out between waterings.



Interesting Tolumnia x pulchella fact 1: Tolumnia x pulchella was the first individual orchid to receive an award from the Royal Horticultural Society (RHS) in 1841.

Interesting Tolumnia x pulchella fact 2: In a 2019 paper by Ruben P. Saulea and Claude W. Hamilton in the online journal 'New World Orchidaceae – Nomenclatural Notes' provides scientific evidence that Tolumnia pulchella is a natural hybrid between Tolumnia guttata and Tolumnia hamiltonii. This has been accepted by Kew. I contact Kew in regards to whether or not the type species for Tolumnia would change since Tolumnia x pulchella is now recognized as a natural hybrid. The response from Kew, Rafael Govaerts, was "The type never changes, it does not matter if it is a nothospecies [a natural hybrid]." Pictures below are from the report.



Tolumnia x pulchella
'Hamlyn' AM/AOS
Jun 2019, NS 2.2 x 2.9 cm
9 Flwrs, 18 Buds, 1 Inflrs
119 F1 and 1842 total progeny



Tolu. guttata

X



Tolu. hamiltonii

=



Tolu. x pulchella

Generally, you would point scale using the Miltonia scale.

Awards:

Below are AOS awards that *Tolumnia x pulchella* [includes *Tolumnia pulchella*] has received:

	FCC	AM	HCC	AQ	AD	JC	CCE	CCM	CHM	CBM	TOTAL
AOS	1	9	9	1		1		2			23
Year(s) Awarded	1972	1967-2019	1971-2004	1964		2010		1969-1974			1964-2019

This cross has received 23 awards since the first award in 1964, with one FCC/AOS in 1972.

Varieties, forms, sub-species

There are no recognized varieties, forms, or sub-species. This natural hybrid is highly variable from almost pure white to solid lavender.

Breeding Characteristics:

Tolumnia x pulchella contributes its purple flower color, flower shape, large flower size, long peduncle (up to 3 feet, 'inflorescence stalk'), among largest *Tolumnia* plant size and erect, straight-leafed with high anthocyanin coloring..

The table below is *Tolumnia x pulchella* hybrids, most, 73.1%, are generic hybrids. A table of the intergeneric hybrids will follow.



Tolu. x pulchella
'Caribbean Snow', JC/AOS
May 2010, NS 3.0 x 3.5 cm
3 Flwrs, 0 Buds, 1 Inflor

Tolu. x pulchella
'Skippy', FCC/AOS
Maf 1972, NS 2.9 cm
36 Flwrs

<u>Tolu. x pulchella</u>	1940	1950	1960	1970	1980	1990	2000	2010	2020	Total
Reg	0	7	68	309	453	283	368	319	35	1842
Assc Awds	0	10	27	241	339	171	249	82	0	1119
<u>F1</u>										
Reg	0	7	28	28	21	12	12	9	0	117
Assc Awds	0	10	14	16	11	4	14	0	0	69
<u>F2</u>										
Reg	0	0	31	149	92	21	26	7	1	327
Assc Awds	0	0	12	185	26	11	22	14	0	270
<u>F3</u>										
Reg	0	0	8	92	264	82	56	43	3	548
Assc Awds	0	0	1	36	218	43	10	7	0	315
<u>Total</u>										
Reg	0	7	67	269	377	115	94	59	4	992
Assc Awds	0	10	27	237	255	58	46	21	0	654

Breeding within three generations of *Tolumnia x pulchella* appears to have peaked in the 1970s and 1980s when 83.2% of all registrations were *Tolumnia x pulchella* 1st thru 3rd generation grexes, the following decade that percentage dropped to 40.6%. This peak in the 1980s for the F3 population and 1970s for F1 and F2 generations with a steady decline since.

Key Primary Hybrids with the most F1 progeny:



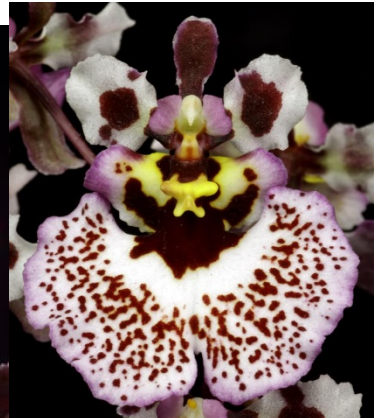
Tolumnia Catherine Wilson
'Lorrie Belle' AM/AOS
Mar 2001, NS 3.1 x 4.1 cm
13 Flwrs, 2 Buds, 1 Inflr
(Tolumnia triquetra x
Tolumnia x pulchella)
W. W. G. Moir, 1959
45 F1 and 1232 total progeny
5 AOS awards
(2 AMs, 1 HCC, 1 JC, 1 CCM)

Tolumnia Delight
'Barbara Anne' AM/AOS
Mar 1976, NS 2.6 x 3.5 cm
6 Flwrs, 6 Buds, 2 Inflrs
(Tolumnia x pulchella x
Tolumnia henekenii)
W. W. G. Moir, 1958
22 F1 and 1275 total progeny
4 AOS awards
(3 AMs, 1 HCCs)

Tolumnia Waikiki Sunset
'Sundance' HCC/AOS
Mar 1998, NS 3.6 x 3.2 cm
6 Flwrs, 5 Buds, 1 Inflr
(Tolumnia x pulchella x
Tolumnia guianensis)
W. W. G. Moir, 1957
18 F1 and 498 total progeny
1 HCC/AOS award

Tolumnia Jamaica
(Tolumnia x pulchella x
Tolumnia guttata)
W. W. G. Moir, 1956
12 F1 and 207 total progeny
1 CCM/AOS award
No picture of awarded clone
Apr 1983, NS 2.8 cm
491 Flwrs, 160 Buds, 40 Inflrs

Most recently awarded F1 thru F3 Grexes



Tolu. Walnut Valley Queen
'M & B Best Pink' AM/AOS
Mar 2022, NS 4.1 x 4.5 cm
17 Flwrs, 54 Buds, 2 Inflrs
(Tolumnia Calypso Queen x
Tolumnia Walnut Valley) F2
Rinke & Thompson, 2019
No progeny
9 AOS awards
(6 AMs, 3 HCCs)

Tolumnia Summer Sunset
'Maui Honeymoon' AM/AOS
Mar 2017, NS 3.2 x 3.8 cm
8 Flwrs, 23 Buds, 1 Inflr
(Tolumnia Kitty Crocker x
Tolumnia Red Spirt) F3
Orchid Trail, 2018
No progeny
1 AM/AOS award

Tolumnia Hawaiian Treasure
'Pam' CR/HOS
Mar 2013, NS 3.0 x 2.9 cm
10 Flwrs, 0 Buds, 1 Inflr
(Tolumnia Seka x
Tolumnia Sensation)
R. Perreira, 2015
No progeny
No AOS awards





Tolumnia Jairak Firm
'Brown Brush' AM/AOS
Apr 2022, NS 2.7 x 3.3 cm
5 Flwrs, 0 Bids, 1 Inflr.
(Tolumnia Rainbow x
Tolumnia Plush)
K. Somboonpol, 2013
4 F1 and 6 total progeny
9 AOS awards (5 AMs, 4 HCCs)

Intergeneric Hybrids:

As mentioned above in the section on breeding there has been limited intergeneric breeding. What breeding that has been done is summarized in the table below with has a partial list (10 or more grexes in the genus) of the major intergeneric genera with *Tolumnia x pulchella*.


<u>Genus</u>	<u>Composition</u>	<u>Grexes Tolumnia xpulchella Progeny</u>	<u>Percent of Tolumnia xpulchella Total Progeny</u>	<u>Genus total Grexes</u>	<u>Percent that are Tolumnia xpulchella</u>
<u>Tolumnia</u> [Tolu.]	Tolu.	1346	73.1%	1482	90.8%
<u>Rodrumnia</u> [Rrm.]	Rdza. x Tolu.	323	17.5%	336	96.1%
<u>Golumnia</u> [Glm.]	Gom. x Tolu.	35	1.9%	50	70.0%
<u>Oncidumnia</u> [Ocd.]	Onc. x Tolu.	32	1.7%	52	61.5%
<u>Zelemnia</u> [Zlm.]	Tolu. x Zel	21	1.1%	27	77.8%
<u>Ilonara</u> [Ilo.]	Gom. x Rdza. x Tolu.	19	1.0%	19	100.0%
<u>Comparumnia</u> [Cmr.]	Comp. x Tolu.	11	0.6%	16	68.8%
<u>Gomcidumnia</u> [Gcn.]	Gom. x Onc. x Tolu.	11	0.6%	14	78.6%

Registered (since 1996) and Awarded F1 – F3 Tolumnia xpulchella Intergeneric Progeny

			
Rrm. Orchidom Lovely Lady 'Uschi' HCC/AOS May 2012, NS 3.1 x 3.4 cm 5 Flwrs, 7 Buds, 1 Inflr (Tolumnia x pulchella x Rrm. Orchidom Red Love) W. Savage, 2007 No progeny 3 HCC/AOS awards	Rodrumnia Orchidom Kitty 'Em Simons' AM/AOS Apr 2010, NS 3.5 x 3.8 cm 42 Flwrs, 7 Buds, 3 Inflrs (Tolumnia Kitty Crocker x Rrm. Orchidom Good Choice) W. Savage, 2010 No progeny 1 AM/AOS award	Gomcidumnia Darling Ruby 'Oudepost' HCC/SAOC Jul 2009, NS 3.5 x 4.1 cm 17 Flwrs, 1 Bud, 3 Inflrs (Tolumnia Golden Sunset x Oncidesa Darling Gold) Duckitt, 2004 No progeny No AOS awards	Rodrumnia Warm Glow 'Arbec' HCC/AOS Apr 1996, NS 2.9 x 3.6 cm 18 Flwrs, 14 Buds, 3 Inflr (Tolumnia Golden Sunset x Rodrumnia Spicey) Richella, 1996 1 F1 progeny 1 HCC/AOS award

Recently Registered and awarded *Tolumnia xpulchella* Intergeneric Progeny

Limited to most recently awarded grex per genus.

			
Rrm. Walnut Valley Cherry 'M & B Speckles' AM/AOS Feb 2022, NS 3.2 x 3.6 cm 40 Flwrs, 64 Buds, 4 Inflrs (Rrm. Mill Hollow x Rrm. Cherry Hollow) Rinke & Thompson, 2019 No progeny 5 AOS awards,(2 AMs, 3 HCCs)	Ilonara Diablo Heart 'Miss Marian' HCC/AOS Mar 2015, NS 3.1 x 3.9 cm 18 Flwrs, 4 Buds, 3 Inflrs (Ilonar Angel Heart x Rodrumnia Spunky) D. Trebotich, 2015 No progeny 1 HCC/AOS award	Golumnia Orchidom Macrojoy 'Owen' AM/AOS Mar 2013, NS 3.9 x 4.1 cm 36 Flwrs, 29 Buds, 4 Inflrs (Tolumnia Alameda Joy x Gomesa macropetala) W. Savage, 2013 No progeny 1 AM/AOS award	Comparumnia Jiaho Butterfly 'JH #101' AM/HOS Mar 2015, NS 3.5 x 4.0 cm 12 Flwrs, 2 Buds, 1 Inflrs (Tolumnia Golden Sunray x Comporetia ignea) Jia Ho Orchids, 2013 No progeny 2 AOS awards (1 AM, 1 AD)

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BUILDING BLOCK DATA

Tolumnia [Tolu.] triquetra (Sw.) Nir, Lindleyana 9: 149 (1994) [tuh-LUM-nee-ah trye-KWEE-tra]

Tolumnia triquetra is found in Jamaica on trees near flowing water in exposed conditions at elevations of 150 to 300 meters (300 to 1000 feet). It is a miniature, fan shaped, warm to cool growing epiphyte with no pseudobulbs, four or more, linear-ligulate, acute leaves held in a fan shape. The plant is more spread out and not as erect as the other Jamaican species and with more anthocyanin. The lateral, erect inflorescence, to 4 to 7 inches (10 to 18 cm) long, slender, terete, simple or few branched, distally, few to many [5 to 15] flowered inflorescence with longlasting, slightly waxy flowers occurring in the winter and summer. The peduncle is very short and branched. The flowers varies greatly in color, from all tan with a red center to all red. Larger plants are more tan, but the red flowers offer more in breeding and beauty.



The sepals and petals are narrow and pointed; the wings on the column are skimpy. The broad-shouldered base to lip is without lateral lobes. The isthmus is very shallow, with a heart-shaped, pointed lower lobe. There is not a crest but a shiny, colored mound in its place. The dorsal sepal is pointed, not concave



Tolumnia triquetra
'Sundance' AM/AOS
Feb 1992, NS 2.8 cm
10 Flwrs, 10 Buds, 1 Inflrs
104 F1 and 1897 total progeny

like that of the other species.

Pods take two to three times longer to ripen than those of all other Tolumnias, consequently it is preferable to be used as the male in breeding.

This species needs to be mounted on cork in bright light, with warm to cool temperatures, high humidity, good air circulation and a complete drying out between waterings.

Generally, you would point scale using the Miltonia scale.

Awards:

Below are AOS awards that Tolumnia triquetra has received:

	FCC	AM	HCC	AQ	AD	JC	CCE	CCM	CHM	CBM	TOTAL
AOS		5	3					3			11
Year(s) Awarded		1966-2013	1980-1987					1967-2006			1966-2013

This species has received 11 awards since the first award in 1966, with highest award being an AM/AOS of 84 points in 1992. The most recently awarded cultivar, 'Jamaica Duppy,' being an alba form.

Varieties, forms, sub-species

There are no recognized varieties, forms, or sub-species. In 2013 the AOS did award an AM to a cultivar named 'Jamaica Duppy' that the judges stated 'first alba form seen by judging team,' see picture to the right.

Breeding Characteristics:

Tolumnia triquetra is the most valuable species for breeding shorter peduncles (too much of it can cause crowded flowers), compact plants, and heart-shaped mid lobe. The qualities of reflowering from the same peduncle for several years and the no crest feature are very recessive. The heart-shaped mid lobe becomes dominant once you get three quarters of the genetic makeup as Tolumnia triquetra. The red color is a valuable trait from Tolumnia triquetra but be sure to use a clone with a strong red rather than too much tan color. However, the redder the flower, the smaller it is and is a dominate feature. One of the sources of spots in hybrids.



Tolumnia triquetra
'Jamaica Duppy', AM/AOS
Feb 2013, NS 2.3 x 2.1 cm
11 Flwrs, 0 Bds, 1 Inflr.

The table below is Tolumnia triquetra hybrids, most, 73.1%, are generic hybrids. A table of the intergeneric hybrids will follow.

<u>Tolu. triquetra</u>	1940	1950	1960	1970	1980	1990	2000	2010	2020	Total
Reg	0	10	71	350	465	286	363	317	35	1897
Assc Awds	0	8	49	249	346	172	249	81	0	1154
<u>F1</u>										
Reg	0	10	20	47	17	5	3	2	0	104
Assc Awds	0	8	10	13	8	4	1	0	0	44
<u>F2</u>										
Reg	0	0	48	119	65	9	15	3	0	259
Assc Awds	0	0	39	125	28	7	22	4	0	225
<u>F3</u>										
Reg	0	0	3	162	223	67	41	30	4	530
Assc Awds	0	0	0	83	171	44	7	12	0	317
<u>Total</u>										
Reg	0	10	71	328	305	81	59	35	4	893
Assc Awds	0	8	49	221	207	55	30	16	0	586

Breeding within three generations of Tolumnia triquetra appears to have peaked in the 1970s and 1980s when 65.6% of all registrations were Tolumnia triquetra 1st thru 3rd generation grexes, the following decade that percentage dropped to 28.3%. This peak is in the 1980s for the F3 population and 1970s for F1 and F2 generations with a steady decline since.

Key Primary Hybrids with the most F1 progeny:



Tolumnia Catherine Wilson
 'Lorrie Belle' AM/AOS
 Mar 2001, NS 3.1 x 4.1 cm
 13 Flwrs, 2 Buds, 1 Inflr
 (Tolumnia triquetra x
 Tolumnia x pulchella)
 W. W. G. Moir, 1959
 45 F1 and 1232 total progeny
 5 AOS awards
 (2 AMs, 1 HCC, 1 JC, 1 CCM)

Tolumnia Tiny Tim
 'SunDance' HCC/AOS
 Jan 2001, NS 3.0 x 3.0 cm
 22 Flwrs, 0 Buds, 2 Inflrs
 (Tolumnia triquetra x
 Tolumnia guianensis)
 W. W. G. Moir, 1957
 35 F1 and 1370 total progeny
 4 AOS awards
 (1 AM, 2 HCCs, 1 AQ)

Tolumnia Red Velvet
 'D & M' AM/AOS
 Mar 1982, NS 2.6 x 3.5 cm
 4 Flwrs, 11 Buds, 1 Inflr
 (Tolumnia triquetra x
 Tolumnia henekenii)
 W. W. G. Moir, 1962
 22 F1 and 431 total progeny
 3 AOS Awards
 (1 AM, 1 HCC, 1 CCM)

Tolumnia Golden Glow
 (Tolumnia triquetra x
 Tolumnia urophylla)
 W. W. G. Moir, 1957
 11 F1 and 1526 total progeny
 No awards

Most recently registered awarded F1 thru F3 Grexes



Tolu. Walnut Valley Queen
 'M & B Best Pink' AM/AOS
 Mar 2022, NS 4.1 x 4.5 cm
 17 Flwrs, 54 Buds, 2 Inflrs
 (Tolumnia Calypso Queen x
 Tolumnia Walnut Valley) F2
 Rinke & Thompson, 2019
 No progeny
 9 AOS awards
 (6 AMs, 3 HCCs)

Tolumnia Jairak Firm
 "Brown Brush" AM/AOS
 Apr 2022, NS 2.7 x 3.3 cm
 5 Flwrs, 0 Bids, 1 Inflr.
 (Tolumnia Rainbow x
 Tolumnia Plush)
 K. Somboonpol, 2013
 4 F1 and 6 total progeny
 9 AOS awards (5 AMs, 4 HCCs)

Tolumnia Jairak Flyer
 'Maragarita Chavarria' AM/AOS
 Apr 2019, NS 2.8 x 3.0 cm
 108 Flwrs, 5 Buds, 12 Inflr
 (Tolumnia Jairak Firm x
 Tolumnia Jairak Rainbow)
 K. Somboonpol, 2013
 2 F1 progeny
 2 AOS awards (1 AM, 1 CCM)

Tolu. Di Ciommo Giuseppe
 'James Paul' HCC/AOS
 Dec 2012, NS 3.2 x 3.8 cm
 29 Flwrs, 8 Buds, 4 Inflr
 (Tolumnia Jairak Rainbow x
 Tolumnia Catherine Wilson)
 Di Ciommo, 2011
 2 F1 progeny
 4 AOS awards (3 HCCs, 1 JC)

Intergeneric Hybrids:

As mentioned above in the section on breeding there has been limited intergeneric breeding. What breeding that has been done is summarized in the table below with has a partial list (10 or more grexes in the genus) of the major intergeneric genera with *Tolumnia triquetra*.

<u>Genus</u>	<u>Composition</u>	<u>Grexes Tolumnia triquetra Progeny</u>	<u>Percent of Tolumnia triquetra Total Progeny</u>	<u>Genus total Grexes</u>	<u>Percent that are Tolumnia triquetra</u>
<u>Tolumnia</u> [Tolu.]	Tolu.	1382	72.9%	1482	93.3%
<u>Rodrumnia</u> [Rrm.]	Rdza. x Tolu.	327	17.2%	336	97.3%
<u>Golumnia</u> [Glm.]	Gom. x Tolu.	37	2.0%	50	74.0%
<u>Oncidumnia</u> [Ocd.]	Onc. x Tolu.	30	1.6%	52	57.7%
<u>Zelemnia</u> [Zlm.]	Tolu. x Zel	24	1.3%	27	88.9%
<u>Ilonara</u> [Ilo.]	Gom. x Rdza. x Tolu.	19	1.0%	19	100.0%
<u>Comparumnia</u> [Cmr.]	Comp. x Tolu.	11	0.6%	16	68.8%
<u>Gomcidumnia</u> [Gcn.]	Gom. x Onc. x Tolu.	11	0.6%	14	78.6%

Registered (since 1996) and Awarded F1 – F3 Tolumnia triquetra Intergeneric Progeny



<p>Gomcidumnia Darling Ruby 'Oudepost' HCC/SAOC Jul 2009, NS 3.5 x 4.1 cm 17 Flwrs, 1 Bud, 3 Inflrs (Tolumnia Golden Sunset x Oncidesa Darling Gold) Duckitt, 2004 No progeny No AOS awards</p>	<p>Rhynchumnia Sunspots 'Calypso' HCC/AOS Feb 2001, NS 3.5 x 4.2 cm 25 Flwrs, 5 Buds, 4 Inflrs (Rhychostele cordata x Tolumnia Golden Sunset) L. Galdes, 2001 No progeny 1 HCC/AOS award</p>	<p>Zgz. Orchidom Outstanding 'Alameda' HCC/AOS Mar 2003, NS 3.4 x 4.3 cm 12 Flwrs, 16 Buds, 4 Inflrs (Zelemnia Carotene x Rodriguezia Whitewater) W. Savage, 2000 1 F1 progeny 1 HCC/AOS award</p>	<p>Rodrumnia Warm Glow 'Arbec' HCC/AOS Apr 1996, NS 2.9 x 3.6 cm 18 Flwrs, 14 Buds, 3 Inflr (Tolumnia Golden Sunset x Rodrumnia Spicey) Richella, 1996 1 F1 progeny 1 HCC/AOS award</p>
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Recently Registered and awarded *Tolumnia xpulchella* Intergeneric Progeny

Limited to most recently awarded grex per genus.



Rrm. Walnut Valley Cherry
'M & B Speckles' AM/AOS
Feb 2022, NS 3.2 x 3.6 cm
40 Flwrs, 64 Buds, 4 Inflrs
(Rrm. Mill Hollow x
Rrm. Cherry Hollow)
Rinke & Thompson, 2019
No progeny
5 AOS Awards (2 AMs, 3 HCCs)

Ilonara Maui Charm
'Alexander James' HCC/AOS
May 2015, NS 2.4 x 2.9 cm
14 Flwrs, 3 Buds, 2 Inflrs
(Ilonara Spotted Moon x
Golumnia Velvet Teenie)
Exotic Orchids, 2015
No progeny
1 HCC/AOS award

Golumnia Orchidom Macrojoy
'Owen' AM/AOS
Mar 2013, NS 3.9 x 4.1 cm
36 Flwrs, 29 Buds, 4 Inflrs
(Tolumnia Alameda Joy x
Gomesa macropetala)
W. Savage, 2013
No progeny
1 AM/AOS award

Comparumnia Jiaho Butterfly
'JH #101' AM/HOS
Mar 2015, NS 3.5 x 4.0 cm
12 Flwrs, 2 Buds, 1 Inflrs
(Tolumnia Golden Sunray x
Comparettia ignea)
Jia Ho Orchids, 2013
No progeny
2 AOS awards (1 AM, 1 AD)

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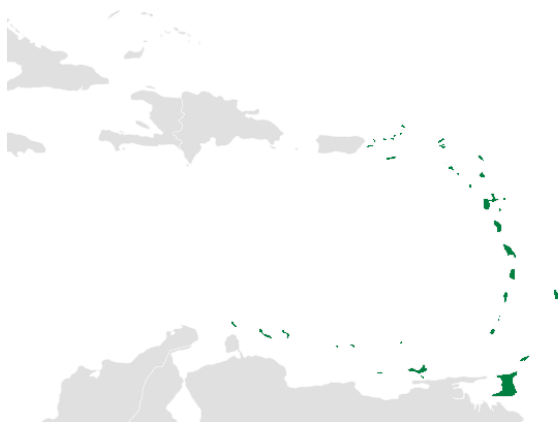
BUILDING BLOCK DATA

Tolumnia [Tolu.] urophylla

(Lodd. ex Lindl.) Braem, Orchidee (Hamburg) 37: 59 (1986)

[tuh-LUM-nee-ah yew-ro-FILL-ah]

Tolumnia urophylla is a miniature, fan shaped, hot to cool growing twig epiphyte with very short, erect stems. The 8 inch [20 cm] linear-ligulate leaves are green bronze in color, sharp-pointed, forming a strong fan with many aerial roots. It blooms from spring thru autumn on a few branched inflorescence that is lateral, erect, slender, terete and can be 3 to 4 feet [90 to 120 cm] long with around 8 to 12 flowers per inflorescence. The inflorescence has a tendency to make any keikis. The plants are native to the northern half of the Lesser antilles where it is found on shrubs at low elevations often very close to the beaches and coast.



The 2.5 cm flowers are yellow, with large, full, indented lower lobe. The medium, rounded lateral lobe protrude from a squarish base of the lip having a complex brownish crest. The sepals and petals are small and slightly reflexed with brownish blotches basally. The wings on the column are like sails.



Tolumnia urophylla
 'Mem. Ike Nelson' HCC/CCM/AOS
 Apr 1982, NS 2.2 cm
 ~1,474 Flwrs, 0 Buds, 183 Inflrs
 13 F1 and 1,552 total progeny

The plants require bright, filtered light with strong air movement. A high average humidity is required with a slightly lower humidity during the dry winter season. Plants should often be watered during active growth, but their roots must always dry quickly, the plants between the waterings must be completely dry.

Moir mentions that this species has proved difficult to perpetuate.

Generally, you would point scale using the Miltonia scale.

Awards:

Below are AOS awards that Tolumnia urophylla has received:

	FCC	AM	HCC	AQ	AD	JC	CCE	CCM	CHM	CBM	TOTAL
AOS			1				1	2			2
Year(s) Awarded			1982				2005	1981-1982			1981-2005

This cross has received 4 awards since the first award in 1981. This is a very small number of awards considering how much it has influenced Tolumnia breeding.

Varieties, forms, sub-species

There are no recognized varieties, forms, or sub-species. Moir does mention that a larger variant was once available, but I have not seen it mentioned anywhere else.

Breeding Characteristics:

Tolumnia urophylla contributes its large mid-lobe along with a dominate yellow color, long peduncles, and 84 chromosomes.

The table below is Tolumnia urophylla hybrids, most, 71.4%, are generic hybrids. A table of the intergeneric hybrids will follow.

<u>Tolu. urophylla</u>	1940	1950	1960	1970	1980	1990	2000	2010	2020	Total
Reg	0	3	18	175	380	274	355	312	35	1552
Assc Awds	0	0	43	196	325	166	248	81	0	1059
<u>F1</u>										
Reg	0	3	2	2	0	0	0	5	1	13
Assc Awds	0	0	0	0	0	0	0	3	0	3
<u>F2</u>										
Reg	0	0	7	11	0	0	0	1	0	19
Assc Awds	0	0	10	2	0	0	0	0	0	12
<u>F3</u>										
Reg	0	0	9	44	16	5	1	1	0	76
Assc Awds	0	0	33	33	2	5	1	2	0	76
<u>Total</u>										
Reg	0	3	18	57	16	5	1	7	1	108
Assc Awds	0	0	43	35	2	5	1	5	0	91

Breeding within three generations of Tolumnia urophylla appears to have peaked in the 1950 and 1970s, but there does appear to be a renewed interest in the 2010s. The first F1 peak occurs in the 1950s while the F2 and F3 peaks occurs in the 1970s. In 2010s there is an increase in reintroducing Tolumnia urophylla, F1 generation only at this time

Key Primary Hybrids with the most F1 progeny:

There really is only one Key Primary Hybrid with Tolumnia urophylla, the most total progeny with any of the other primary hybrids is 24.

Tolumnia Golden Glow
 (Tolumnia triquetra x
 Tolumnia urophylla)
 W. W. G. Moir, 1957
 11 F1 and 1526 total progeny
 No awards



Most recently registered awarded F1 thru F3 Grexes



<p>Tolu. Walnut Valley Queen 'M & B Best Pink' AM/AOS Mar 2022, NS 4.1 x 4.5 cm 17 Flwrs, 54 Buds, 2 Inflrs (Tolumnia Calypso Queen x Tolumnia Walnut Valley) F2 Rinke & Thompson, 2019 No progeny 9 AOS awards (6 AMs, 3 HCCs)</p>	<p>Rrm. Memoria Pat Tomlinson 'Hamlyn' AM/AOS Feb 2019, NS 2.9 x 3.1 cm 79 Flwrs, 52 Buds, 14 Inflrs (Rrm. Orchidom Alameda Beth x Tolumnia urophylla) Claude Hamilton, 2013 No progeny 3 AOS awards (1 AM, 1 HCC, 1 AQ)</p>	<p>Tolumnia Red Barry 'Lizzy's Spanish Dancers' HCC/AOS Mar 2012, NS 2.9 x 3.5 cm 12 Flwrs, 12 Buds, 2 Inflrs (Tolumnia Passionata Red x Tolumnia Red Belt) Chaw Chin Sin, 2015 No progeny 1 HCC/AOS awards</p>	<p>Tolumnia Calypso Bay 'Carol' AM/AOS Mar 2005, NS 3.5 x 3.6 cm 14 Flwrs, 1 Bids, 1 Infr. (Tolumnia Bayfield x Tolumnia Calypso Queen) A. Aldrich, 1999 2 F1 progeny 3 AOS awards (1AMs, 2HCCs)</p>
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Intergeneric Hybrids:

As mentioned above in the section on breeding there has been limited intergeneric breeding. What breeding that has been done is summarized in the table below with has a partial list (10 or more grexes in the genus) of the major intergeneric genera with Tolumnia urophylla.

<u>Genus</u>	<u>Composition</u>	<u>Grexes Tolumnia xpulchella Progeny</u>	<u>Percent of Tolumnia xpulchella Total Progeny</u>	<u>Genus total Grexes</u>	<u>Percent that are Tolumnia xpulchella</u>
<u>Tolumnia [Tolu.]</u>	Tolu.	1108	71.4%	1482	74.8%
<u>Rodrumnia [Rrm.]</u>	Rdza. x Tolu.	317	20.4%	336	94.3%
<u>Golumnia [Glm.]</u>	Gom. x Tolu.	19	1.2%	50	38.0%
<u>Oncidumnia [Ocd.]</u>	Onc. x Tolu.	19	1.2%	52	36.5%
<u>Zelemnia [Zlm.]</u>	Tolu. x Zel	21	1.4%	27	77.8%
<u>Ilonara [Ilo.]</u>	Gom. x Rdza. x Tolu.	18	1.2%	19	94.7%

Registered (since 1996) and Awarded F1 – F3 Tolumnia urophylla Intergeneric Progeny



Rrm. Memoria Pat Tomlinson
 'Hamlyn' AM/AOS
 Feb 2019, NS 2.9 x 3.1 cm
 79 Flwrs, 52 Buds, 14 Inflrs
 (Rrm. Orchidom Alameda
 Beth x Tolumnia urophylla)
 Claude Hamilton, 2013
 No progeny
 3 AOS awards
 (1 AM, 1 HCC, 1 AQ)



Rodrumnia Tussey
 'Myth' HCC/AOS
 May 1998, NS 2.7 x 3.7 cm
 8 Flwrs, 12 Buds, 6 Inflrs
 (Tolumnia Red Belt x
 Rodriguezia bracteata)
 T. Smyth, 1998
 No progeny
 1 HCC/AOS award



Rodrumnia Rio's Happy
 'Sue' HCC/AOS
 Mar 1982, NS 2.6 cm
 6 Flwrs, 10 Buds, 2 Inflrs
 (Rodriguezia lanceolata x
 Tolumnia Calypso Queen)
 Rueben in Orchids, 1979
 No progeny
 2 AOS awards (1 HCC, 1 CCM)



Gcm. Carnival Costume
 'Summer Sprite' HCC/AOS
 Oct 1980, NS 3.3 x 4.0 cm
 118 Flwrs, 0 Bud, 13 Inflrs
 (Oncidesa Sarcatum x
 Tolumnia Red Belt)
 Rod McLellan Co, 1978
 2 F1 progeny
 6 AOS awards
 (2 HCCs, 4 CCMs)

Recently Registered and awarded Tolumnia xpulchella Intergeneric Progeny

Limited to most recently awarded grex per genus.



Rrm. Walnut Valley Cherry
 'M & B Speckles' AM/AOS
 Feb 2022, NS 3.2 x 3.6 cm
 40 Flwrs, 64 Buds, 4 Inflrs
 (Rrm. Mill Hollow x
 Rrm. Cherry Hollow)
 Rinke & Thompson, 2019
 No progeny
 5 AOS awards, (2 AMs, 3 HCCs)



Ilonara Diablo Heart
 'Miss Marian' HCC/AOS
 Mar 2015, NS 3.1 x 3.9 cm
 18 Flwrs, 4 Buds, 3 Inflrs
 (Ilonar Angel Heart x
 Rodrumnia Spunky)
 D. Trebotich, 2015
 No progeny
 1 HCC/AOS award



Golumnia Orchidom Macrojoy
 'Owen' AM/AOS
 Mar 2013, NS 3.9 x 4.1 cm
 36 Flwrs, 29 Buds, 4 Inflrs
 (Tolumnia Alameda Joy x
 Gomesa macropetala)
 W. Savage, 2013
 No progeny
 1 AM/AOS award



Comparumnia Jiaho Butterfly
 'JH #101' AM/HOS
 Mar 2015, NS 3.5 x 4.0 cm
 12 Flwrs, 2 Buds, 1 Inflrs
 (Tolumnia Golden Sunray x
 Comporetia ignea)
 Jia Ho Orchids, 2013
 No progeny
 2 AOS awards (1 AM, 1 AD)

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Probationary Judges:

Discuss the significance of each of the following to the development of new plants and the possible significance to judging criteria:

a) Colchicine – A carcinogenic compound used to double chromosome numbers artificially through the interference of microtubule function during mitosis, seed germination, hence usually doubling the polyploidy. Colchicine treated plants have the following traits:

- Increased color intensity
- Increased substance
- Increased size
- Usually slower growth
- Broader and longer leaves
- Care must be taken in breeding plants with similar polyploidy

Currently, from a judging point of view, we do NOT treat Colchicine treated plants any differently than orchid plants that are NOT treated with Colchicine.

Orchids; *Colchicine – Treated Orchids*, Doherty, J.; April, Vol. 83 (4); pgs. 246-247.

b) Pollen culture – Seed and in turn plants that are the result of conventional pollination processes or with the aid of man by transferring pollina from one plant to the stigmatic surface of another plant.

No special handling of plants / flowers associated with plants this process.

c) Cell fusion – From Wikipedia “Cell Fusion” is an important cellular process in which several uninucleate cells (cells with a single nucleus) combine to form a multinucleate cell, known as a syncytium. Cell fusion occurs during differentiation of myoblasts, osteoclasts and trophoblasts, during embryogenesis, and morphogenesis. Cell fusion is a necessary event in the maturation of cells so that they maintain their specific functions throughout growth.

I am not sure what is being asked for, but my guess is that meri-stemming may be what is being referred to.

Meri-stem plants are exact duplicates of the ‘mother plant’ and as such are treated (from a judging standpoint) as divisions of the plant. That is meri-stemmed plants carry the same cultivar name and associated awards. There are exceptions to this since meri-stemmed plants are not always exact duplicates (there usually are VERY small differences) for example if the resulting flower color associated with the plant is significantly different (for example yellow instead of lavender). Only if this difference is significantly different is a plant judgable as a separate clone.

d) Virus transduction – From Wikipedia: Transduction is the process by which foreign DNA is introduced into a cell by a virus or viral vector. From this definition I am assuming that ‘virus transduction’ is referring to virus infected plants. Virus infected plants do not necessarily have any obvious signs that the plants are infected. The virus when they do show viral signs they are some sort of distortion and/or necrosis.

As a general rule, I know of no center that does virus testing prior to judging. But if a flower is brought to the judging center that does show signs of a viral infection, distortions and or necrosis, the plants are not judged. Section 5.3.6: “...Plants showing signs of obvious disease or infestation by pests shall not be judged; ...”

e) Sibling crossing of species – A sibling is specifically considered a cross between two plants from the same seed pod, but I believe it is also sometimes references crosses between different seed pods especially for species. A conventional crossing between two different cultivars is sometimes referred to as line breeding. Sibling / Line breed species are NOT considered hybrids but is a species.

When a sibling cross or a line breed plant are brought to be judge they are treated the same as any other plant that is brought to be judged.

Award Descriptions (May 2022)



Tolumnia Vison – Quality Award Description

(Tolu. Wilbur x Tolu. Robsan)

Eleven flowers on one 52 cm erect inflorescence; sepals erect, dark mahogany overlay leaving apice white; petals recurved marginally, white, dark mahogany basally, bothched reddish-brown apice marginally; labellum white, red mask, keels yellow apically; column red; substance firm; texture matte.

Tolumnia Will Hepworth – Quality Award Description

(Tolu. Willowbank Rose x Tolu. Anthony Johnson)

Fifty-three beautifully arranged flowers and eighteen buds on four up to 62-cm long inflorescences; sepals white heavily overlaid dark marron, petals broad, white, slightly blushed pink, blotches centrally coalescing mostly, marron; lip tri-lobed, mid-lobed notched, round, full, white, blushed pink distally, randomly blotched carmine centrally, mask carmine, radiating, kells white, carmine basally; column, projecting column wings, and anther cap cream overlaid light pink; substance firm; texture matte.



Rrm. Velvet Queen – Cultural Award Description

(Tolu. Kathleen Oka x Rrm. Spunky)

One hundred and fifty charming flowers and twenty buds on fourteen erect to arching inflorescences up to 24 inch (60 cm) in length borne from 48 fans on a robust clean plant in a 4 inch (10 cm) in diameter clay pot; sepals yellow, heavily overlaid brick red; petals yellow, heavily overlaid brick red basal half; lip tri-lobe, mid-lobe pronounced central notch, flat, yellow, mask carmine, spots occasionally on mid-lobe; column and anther cap, creamy yellow; substance firm; texture matte.

Tolumnia Vorarat Belle – Quality Award Description

(Tolu. Purple Envy x Tolu. Golden Sunset)

Nine slightly cupped flowers and two buds on one erect 11 in (28 cm) inflorescences; sepals erect, recurved, white overlaid mahogany basal two thirds; petals white, overlaid mahogany basally; lip tri-lobe, mid-lobe deeply notched, white, overlaid carmine centrally, mask yellow centrally; column, column wings, and anther cap, white; substance firm; texture matte.



Rrm. Willinga – Quality Award Description

(Rrm. Stanley's Choice x Tolu. Golden Girls)

Eighteen slightly cupped flowers and 3 buds on two slightly arching inflorescences up to 54-cm long; sepals and petals white, blotched mahogany, coalescing, basally; petals blushed pink superior margin; lip tri-lobe, white, side-lobes overlaid pink, mid-lobe overlaid light pink, mask carmine, keels cream, carmine basally; column, column wings, and anther cap white, blushed pink; substance thin; texture matte.

BUILDING BLOCK DATA

Tolumnia [Tolu.] guianensis

(Aubl.) Braem, Orchidee (Hamburg) 37: 58 (1986)

[tuh-LUM-nee-ah gi-AUN-en-sis??]

Tolumnia guianensis is found on Hispaniola (Haiti and Dominican Republic) and are adaptable plants growing in arid, semiarid, and moist regions in both dry and humid subtropical forests from sealevel to 700 meters (0 to 2300 feet). It is a miniature, fan shaped, hot to warm growing epiphyte having five to six thick, conduplicate, sickle-shaped, acute, bronze-green up to four inch (10 cm) long leaves held in a fan shape. The erect simple or few branched inflorescence, to to 16 inches (40 cm) long, emerges from the base of a recently matured growth. The flowers, up to twenty on an inflorescences, are up to one inch (2.5 cm) across and are carried mostly on the upper half of the spike blooming in the late winter. There are several varieties with the typical flower form almost entirely yellow with only small



brownish areas around the crest and at the base of the petals. The small, spoon-shaped sepals are 0.2 in. (0.4-0.5 cm) long with a narrow, stemlike base that widens to a rounded blade toward the apex where there is a small, sharply pointed projection in the center of the apical margin. The dorsal sepal is erect. The lateral



Tolumnia guianensis
 'Yellow Doll' AM/AOS
 May 1981, NS 3.0 cm
 12 Flwrs, 46 Buds, 2 Inflrs
 60 F1 and 1528 total progeny

sepals are joined into a synsepal for their entire length and are completely hidden behind the large, spreading lip. The synsepal has two small, sharply pointed projections at the apex that are separated only by a relatively broad, shallow U-shaped notch or depression. The large, spreading petals, which are about 0.5 in. (1.2 cm) long, have a relatively long, narrow claw at the base and then spread abruptly into a rather square blade that is about 0.5 in. (1.2 cm) wide and has very ruffled margins with a shallow, U-shaped notch in the apical margin with a small, triangular, sharply pointed projection in its center. The large, spreading lip is about 0.6 in. (1.5 cm) long with small, rounded, earlike lateral lobes toward the base. A fairly short, narrow isthmus separates the lateral lobes from the base of the spreading, heart- to kidney-shaped midlobe which is about 0.6 in. (1.5 cm) wide and like the petals has very ruffled margins with a shallow, U-shaped notch in the apical margin with a small, triangular, sharply pointed projection in its center. The small, erect column has a pair of spreading, somewhat rectangular wings with wavy margins toward the apex.

This species needs to be mounted on cork in bright light, with warm to cool temperatures, high humidity, good air circulation and a complete drying out between waterings.

Generally, you would point scale using the Miltonia scale.

Awards:

Below are AOS awards that Tolumnia guianensis has received:

	FCC	AM	HCC	AQ	AD	JC	CCE	CCM	CHM	CBM	TOTAL
AOS		3	4					2	1	2	11
Year(s) Awarded		1974-1990	1969-2014					1974-1999	1998	1970-1982	1966-2013

This species has received 12 awards since the first award, an HCC, in 1969, with highest award being an AM/AOS of 82 points in 1974. The most recently awarded cultivar, 'Katherine Jamison,' receiving an HCC.

Varieties, forms, sub-species

With the switch from *Oncidium* to *Tolumnia*, the previously existing *Oncidium* varieties were lost.

Tolumnia guianensis varies in size and color with elevation – the small green leaved spring bloomer in eastern Hispaniola at 100 feet; the darker green, medium-sized summer bloomer on longer peduncles in central Hispaniola at 1000 feet; and the bronze, large plants with shorter peduncles blooming in the fall in South Haiti at 2,000 to 2,500 feet. With each change in location westward and higher in elevation the flowers double in size.

The plant of the western hills reaches its most beautiful forms, with all the variants in color – *album* (also *alba*, white flowers with a green overtone centrally), *alborubrum* (also albo-rubrum, albo-rubra: white base color with red markings), *aureorubrum* (also aureo-rubra: yellow base color with a large brownish lip mid-lobe), and *albo aurantiacum* (mostly fiery red flowers). Some forms of these variants fade in strong light; in some the colors get stronger. None of the variants are as large, strong, and floriferous as the deep-yellow flowered type form found on bronze-leaved plants in mid-elevation in the west. Other variants, having less of the powerful yellow, are considered degenerates. Hybrids or selfings of these degenerates give 25 to 50 percent off-spring producing yellow flowers that are larger than the degenerates.



Tolu. guianensis h.f. albo-rubra



Tolu. guianensis h.f. aureo-rubra
'Katharine Jamison', HCC/AOS
Apr 2013, NS 2.0 x 1.9 cm
11 Flwrs, 8 Bds, 2 Inflr.



Tolu. guianensis h.f. album
'Hunabu', CBR/AOS
Jan 1982, NS 2.9 cm
9 Flwrs, 2 Bds, 1 Inflr.

Breeding Characteristics:



Tolumnia guianensis contributes broad, large petals which in turn broadens flowers and rounds them out or squares them. It also can shorten the peduncle and give strange color effects. Be careful of the variant from central Hispaniola, with 3-foot long peduncles, which flowers in the early summer. Use the Haitian and southwestern Dominican Republic variants for size, variation in color, and display of flowers double the size of the rest.

The table below is *Tolumnia guianensis* hybrids, most, 71.4%, are generic hybrids. A table of the intergeneric hybrids will follow.





Tolu. guianensis	1930	1940	1950	1960	1970	1980	1990	2000	2010	2020	Total
Reg	0	1	6	32	177	344	267	357	309	35	1528
Assc Awds	0	0	5	19	153	302	161	246	79	0	965
F1											
Reg	0	1	6	13	26	3	9	0	2	0	60
Assc Awds	0	0	5	1	2	5	5	0	0	0	18
F2											
Reg	0	0	0	14	44	14	2	7	0	1	82
Assc Awds	0	0	0	12	87	4	1	2	0	0	106
F3											
Reg	0	0	0	5	85	133	44	33	13	0	313
Assc Awds	0	0	0	6	57	152	33	5	8	0	261
Total											
Reg	0	1	6	32	155	150	55	40	15	1	455
Assc Awds	0	0	5	19	146	161	39	7	8	0	385

Breeding within three generations of *Tolumnia guianensis* appears to have peaked in the 1970s and 1980s when in 1970s 87.6% of all registrations were *Tolumnia guianensis* 1st thru 3rd generation grexes, by the 1990s the percentage dropped to 20.6%. This peak is in the 1980s for the F3 population and 1970s for F1 and F2 generations with a steady decline since.

Key Primary Hybrids with the most F1 progeny:

		No Photo available	No Photo available
<p>Tolumnia Tiny Tim ‘SunDance’ HCC/AOS Jan 2001, NS 3.0 x 3.0 cm 22 Flwrs, 0 Buds, 2 Inflrs (Tolumnia triquetra x Tolumnia guianensis) W. W. G. Moir, 1957 35 F1 and 1370 total progeny 4 AOS awards (1 AM, 2 HCCs, 1 AQ)</p>	<p>Tolumnia Waikiki Sunset ‘Sundance’ HCC/AOS Mar 1998, NS 3.6 x 3.2 cm 6 Flwrs, 5 Buds, 1 Inflr (Tolumnia x pulchella x Tolumnia guianensis) W. W. G. Moir, 1957 18 F1 and 498 total progeny 1 HCC/AOS award</p>	<p>Tolumnia Pastel (Tolumnia variegata x Tolumnia guianensis) W. W. G. Moir, 1957 2 F1 and 249 total progeny No Awards</p>	<p>Tolumnia La Citadelle (Tolumnia Red Velvet x Tolumnia guianensis) W. W. G. Moir, 1967 4 F1 and 47 total progeny No awards</p>

Most recently registered awarded F1 thru F3 Grexes



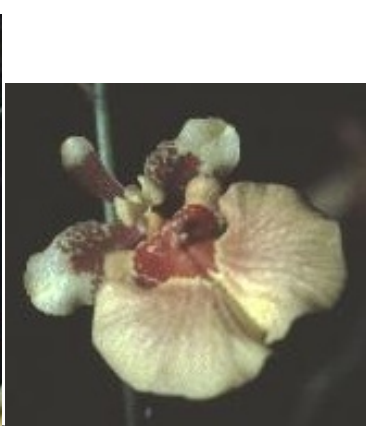

			
<p>Tolumnia Jairak Firm “Brown Brush’ AM/AOS Apr 2022, NS 2.7 x 3.3 cm 5 Flwrs, 0 Bids, 1 Inflr. (Tolumnia Rainbow x Tolumnia Plush) K. Somboonpol, 2013 4 F1 and 6 total progeny 9 AOS awards (5 AMs, 4 HCCs)</p>	<p>Tolumnia Galveston Sunrise ‘Sundance’ AM/AOS Mar 2007, NS 4.1 x 4.5 cm 9 Flwrs, 0 Buds, 1 Inflrs (Tolumnia Galveston Bay x Tolumnia Waikiki Sunset) A. Aldrich, 2007 No progeny 1 AM/AOS award</p>	<p>Gomcidumnia Darling Ruby ‘Oudepost’ HCC/SAOC Jul 2009, NS 3.5 x 4.1 cm 17 Flwrs, 1 Bud, 3 Inflrs (Tolumnia Golden Sunset x Oncidesa Darling Gold) Duckitt, 2004 No progeny No AOS awards</p>	<p>Tolu. Genting Angel ‘Elizabeth Grace’ HCC/AOS Jul 2014, NS 2.8 x 3.2 cm 11 Flwrs, 5 Buds, 1 Inflr (Tolumnia Irene Gleason x Tolumnia Linda) Chaw Chin Sin, 2002 4 F1 and 8 total progeny 1 HCC/AOS award</p>

Intergeneric Hybrids:

As mentioned above in the section on breeding there has been limited intergeneric breeding. What breeding that has been done is summarized in the table below which is a partial list (10 or more grexes in the genus) of the major intergeneric genera with Tolumnia guianensis.

<u>Genus</u>	<u>Composition</u>	<u>Grexes Tolumnia guianensis Progeny</u>	<u>Percent of Tolumnia guianensis Total Progeny</u>	<u>Genus total Grexes</u>	<u>Percent that are Tolumnia guianensis</u>
<u>Tolumnia [Tolu.]</u>	Tolu.	1091	71.4%	1482	73.6%
<u>Rodrumnia [Rrm.]</u>	Rdza. x Tolu.	307	20.1%	336	91.4%
<u>Golumnia [Glm.]</u>	Gom. x Tolu.	25	1.6%	50	50.0%
<u>Oncidumnia [Ocd.]</u>	Onc. x Tolu.	21	1.4%	52	40.4%
<u>Zelemnia [Zlm.]</u>	Tolu. x Zel	18	1.2%	27	66.7%
<u>Ilonara [Ilo.]</u>	Gom. x Rdza. x Tolu.	18	1.2%	19	94.7%

Registered (since 1996) and Awarded F1 – F3 *Tolumnia guianensis* Intergeneric Progeny

			
<p>Gomcidumnia Darling Ruby 'Oudepost' HCC/SAOC Jul 2009, NS 3.5 x 4.1 cm 17 Flwrs, 1 Bud, 3 Inflrs (<i>Tolumnia Golden Sunset</i> x <i>Oncidesa Darling Gold</i>) Duckitt, 2004 No progeny No AOS awards</p>	<p>Rhynchumnia Sunspots 'Calypso' HCC/AOS Feb 2001, NS 3.5 x 4.2 cm 25 Flwrs, 5 Buds, 4 Inflrs (<i>Rhychostele cordata</i> x <i>Tolumnia Golden Sunset</i>) L. Galdes, 2001 No progeny 1 HCC/AOS award</p>	<p>Rodrumnia Warm Glow 'Arbec' HCC/AOS Apr 1996, NS 2.9 x 3.6 cm 18 Flwrs, 14 Buds, 3 Inflr (<i>Tolumnia Golden Sunset</i> x <i>Rodrumnia Spicey</i>) Richella, 1996 1 F1 progeny 1 HCC/AOS award</p>	<p>Zelemnia Carotene 'Orchidom' AM/AOS Jan 2004, NS 2.8 x 3.2 cm 36 Flwrs, 118 Buds, 8 Inflrs (<i>Tolumnia Golden Sunset</i> x <i>Zelemnia Trixie</i>) Richella, 1989 5 F1 and 7 total progeny 7 AOS awards (3 AMs, 4 HCCs)</p>

Recently Registered and awarded *Tolumnia guianensis* Intergeneric Progeny

Limited to most recently awarded grex per genus.

			
<p>Rrm. Walnut Valley Cherry 'M & B Speckles' AM/AOS Feb 2022, NS 3.2 x 3.6 cm 40 Flwrs, 64 Buds, 4 Inflrs (Rrm. Mill Hollow x Rrm. Cherry Hollow) Rinke & Thompson, 2019 No progeny 5 AOS Awards (2 AMs, 3 HCCs)</p>	<p>Ilonara Maui Charm 'Alexander James' HCC/AOS May 2015, NS 2.4 x 2.9 cm 14 Flwrs, 3 Buds, 2 Inflrs (Ilonara Spotted Moon x Golumnia Velvet Teenie) Exotic Orchids, 2015 No progeny 1 HCC/AOS award</p>	<p>Golumnia Orchidom Macrojoy 'Owen' AM/AOS Mar 2013, NS 3.9 x 4.1 cm 36 Flwrs, 29 Buds, 4 Inflrs (<i>Tolumnia Alameda Joy</i> x <i>Gomesa macropetala</i>) W. Savage, 2013 No progeny 1 AM/AOS award</p>	<p>Zelumguezia Orchidom Smashing 'Sentinel's Yellow Cascade' AM/AOS Jun 2013, NS 2.8 x 3.3 cm 70 Flwrs, 50 Buds, 5 Inflrs (Rrm. Orchidom Red Love x <i>Zelenkoa onusta</i>) W. Savage, 2011 No progeny 4 AOS awards (3 AMs, 1 HCC)</p>

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Orchids, *Equitants Today – The Hybridizers Behind Contemporary Tolumnias*, R. Cole, Vol. 81 (7), Jul 2012, pgs. 404-417

BUILDING BLOCK DATA

Tolumnia [Tolu.] henekenii

(R.H.Schomb. ex Lindl.) Nir, Lindleyana 9: 149 (1994)

[tuh-LUM-nee-ah hen-eh-KEN-ee-eye]

Tolumnia henekenii is a miniature, fan shaped, hot to warm growing twig epiphyte with very short, erect stems. It has thin creeping rhizome, and very short, leafy stems carrying 1.2 inch [3 cm] stiff, sharply curved, bluntly tipped, bronzed-green leaves. It blooms in late spring thru early summer on an arching wiry, sometimes branching 6 to 12 inch (15 to 30 cm) few flowered (around 15 flowers totally) inflorescence that continues to lengthen as one flower after another is formed over a period of many months. The plants are native the Dominican Republic in dry brush and cacti in very dry subtropical forests at elevations of sea level to 150 meters.



Tolumnia henekenii
 'Tsunami' HCC/CCM/AOS
 May 1986, NS 0.6 x 2.2 cm
 31 Flwrs, 26 Buds, 10 Inflrs
 45 F1 and 1,431 total progeny



Tolumnia henekenii
 Non-awarded cultivar, close-up

The 0.8 inch (2 cm) flowers are dominated by large squarish dark lip. The green-yellow dorsal sepal and petals stand up behind the column, the the lateral sepals lie behind the lip. The large, widely, spread spread, furry lip, is about 0.5 inch (1.2 cm) long, purple-black with a velvety, pink cest and a narrow border of green-yellow around the wavy, irregular margins. The lip has three to five slender protuberances on each side, so that it appears to have legs. The column has no wings.

This species is an imitator, as the flowers have a definite insect look to them [some say a bee], hence it's common name the "Bee Orchid".

Mounting this species on a small stick and keeping in a bright location with a daily light misting but not much water as the plant likes to stay dry.

Generally, you would point scale using the Miltonia scale.

Awards:

Below are AOS awards that Tolumnia henekenii has received:

	FCC	AM	HCC	AQ	AD	JC	CCE	CCM	CHM	CBM	TOTAL
AOS		1	1					5			7
Year(s) Awarded		1980	1986					1971-1995			1971-1995

This cross has received 7 awards since the first award in 1971. This is a very small number of awards considering how much it has influenced Tolumnia breeding.

Varieties, forms, sub-species

There are no recognized varieties, forms, or sub-species. Moir does mention that the five appendages variant is a larger flower and makes more beautiful hybrids. The branching peduncle variants are more valuable.

Breeding Characteristics:

Tolumnia henekenii contributes flowers that are broader at the lip base and middle of the flower than at either top or bottom, and thus makes an oval flower as well as the rectangular crest shape. I also shortens the inflorescences and introduces strange color effects.

The table below is Tolumnia henekenii hybrids, most, 73.0%, are generic hybrids. A table of the intergeneric hybrids will follow.

Tolu. henekenii	1940	1950	1960	1970	1980	1990	2000	2010	2020	Total
Reg	0	2	40	216	329	222	305	284	33	1431
Assc Awds	0	4	13	80	210	147	236	76	0	766
F1										
Reg	0	2	14	12	12	2	2	1	0	45
Assc Awds	0	4	3	2	1	2	0	0	0	12
F2										
Reg	0	0	19	43	13	2	1	0	0	78
Assc Awds	0	0	8	9	1	2	1	0	0	21
F3										
Reg	0	0	6	65	37	4	3	5	0	120
Assc Awds	0	0	2	6	5	4	4	9	0	30
Total										
Reg	0	2	39	120	62	8	6	6	0	243
Assc Awds	0	4	13	17	7	8	5	9	0	63

Breeding within three generations of Tolumnia henekenii appears to have peaked in the 1960 and 1970s. The F1 peak occurs in the 1950s while the F2 and F3 peaks occurs in the 1960s.

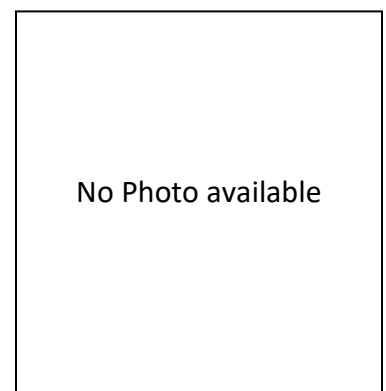
Key Primary Hybrids with the most F1 progeny:



Tolumnia Delight
'Eichenfels' AM/AOS
Apr 1974, NSV 3.8 cm
7 Flwrs, 0 buds, 1 Inflr
(Tolumnia pulchella x
Tolumnia henekenii)
W. W. G. Moir, 1958
22 F1 and 1275 total progeny
4 AOS awards (3 AMs, 1 HCC)



Tolumnia Red Velvet
'D & M', AM/AOS
Mar 1982, NS 2.6 x 3.5 cm
4 Flwrs, 11 buds, 1 Inflr
(Tolumnia triquetra x
Tolumnia henekenii)
W. W. G. Moir, 1962
22 F1 and 421 total progeny
3 AOS awards (1 AM, 1 HCC, 1 CCM)



Tolumnia Luis Ariza Julia
(Tolumnia calochila x
Tolumnia henekenii)
W. W. G. Moir, 1963
6 F1 and 19 total progeny
No awards

Most recently registered awarded F1 thru F3 Grexes



<p>Tolu. Jiaho Rose ‘Fantasy Rose’ AM/AOS Mar 2015, NS 2.3 x 2.7 cm 58 Flwrs, 0 Buds, 5 Inflrs (Tolumnia Robefield x Tolumnia Sunkist) Jia-Ho Orchid Nursery, 2013 No progeny 1 AM/AOS award</p>	<p>Tolumnia Jairak Firm “Brown Brush’ AM/AOS Apr 2022, NS 2.7 x 3.3 cm 5 Flwrs, 0 Bids, 1 Inflr. (Tolumnia Rainbow x Tolumnia Plush) K. Somboonpol, 2013 4 F1 and 6 total progeny 9 AOS awards (5 AMs, 4 HCCs)</p>	<p>Tolumnia Newberry Cuttie ‘Anita’s Pinkie’ HCC/AOS Apr 2003, NS 3.5 x 4.0 cm 12 Flwrs, 32 Buds, 4 Inflrs (Tolumnia Newberry Dancer x Tolumnia Port Antonio) C=Carter & Holmes, 2003 No progeny 1 HCC/AOS awards</p>	<p>Tolumnia Gold Bug ‘O’ Whimsy’ HCC/AOS Apr 2004, NS 3.5 x 3.6 cm 7 Flwrs, 1 Bids, 1 Inflr. (Tolumnia Golden Scarab x Tolumnia Jolly Good) A. Aldrich, 2000 No progeny 1 HCC/AOS award</p>
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Intergeneric Hybrids:

As mentioned above in the section on breeding there has been limited intergeneric breeding. What breeding that has been done is summarized in the table below with has a partial list (10 or more grexes in the genus) of the major intergeneric genera with Tolumnia henekenii.

<u>Genus</u>	<u>Composition</u>	<u>Grexes Tolumnia xpulchella Progeny</u>	<u>Percent of Tolumnia xpulchella Total Progeny</u>	<u>Genus total Grexes</u>	<u>Percent that are Tolumnia xpulchella</u>
<u>Tolumnia</u> [Tolu.]	Tolu.	1044	73.0%	1482	74.8%
<u>Rodrumnia</u> [Rrm.]	Rdza. x Tolu.	294	20.5%	336	94.3%
<u>Golumnia</u> [Glm.]	Gom. x Tolu.	19	1.3%	50	38.0%
<u>Ilonara</u> [Ilo.]	Gom. x Rdza. x Tolu.	18	1.3%	19	94.7%
<u>Zelemnina</u> [Zlm.]	Tolu. x Zel	15	1.0%	27	77.8%

Registered and Awarded F1 – F3 Tolumnia henekenii Intergeneric Progeny

As a comment: It is interesting that there has only been one Tolumnia henekenii progeny within the first three generations that has received an AOS award. My guess: the reason is that the relatively small Tolumnia henekenii flower size is dominate in the first few generations and is generally not appreciated by AOS judges.

Zlm. Yellow Charm
 'Butter-Bee' AM/AOS
 Apr 1975, NS 1.5 x 2.7 cm
 17 Flwrs, 61 Buds, 6 Inflrs
 (Zelenkoz onusta x
 Tolumnia henekenii)
 R. F. Fuchs, 1975
 No progeny
 1 AM/AOS award



Recently Registered and awarded Tolumnia x pulchella Intergeneric Progeny

Limited to most recently awarded grex per genus.



Rrm. Walnut Valley Cherry
 'M & B Speckles' AM/AOS
 Feb 2022, NS 3.2 x 3.6 cm
 40 Flwrs, 64 Buds, 4 Inflrs
 (Rrm. Mill Hollow x
 Rrm. Cherry Hollow)
 Rinke & Thompson, 2019
 No progeny
 5 AOS awards, (2 AMs, 3 HCCs)

Ilonara Diablo Heart
 'Miss Marian' HCC/AOS
 Mar 2015, NS 3.1 x 3.9 cm
 18 Flwrs, 4 Buds, 3 Inflrs
 (Ilonar Angel Heart x
 Rodrumnia Spunky)
 D. Trebotich, 2015
 No progeny
 1 HCC/AOS award

Golumnia Orchidom Macrojoy
 'Owen' AM/AOS
 Mar 2013, NS 3.9 x 4.1 cm
 36 Flwrs, 29 Buds, 4 Inflrs
 (Tolumnia Alameda Joy x
 Gomesa macropetala)
 W. Savage, 2013
 No progeny
 1 AM/AOS award

Comparumnia Jiaho Butterfly
 'JH #101' AM/HOS
 Mar 2015, NS 3.5 x 4.0 cm
 12 Flwrs, 2 Buds, 1 Inflrs
 (Tolumnia Golden Sunray x
 Comporetia ignea)
 Jia Ho Orchids, 2013
 No progeny
 2 AOS awards (1 AM, 1 AD)

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Award Descriptions (June 2022)



Rodrurnia Hawaiian Starburst – Quality Award Description

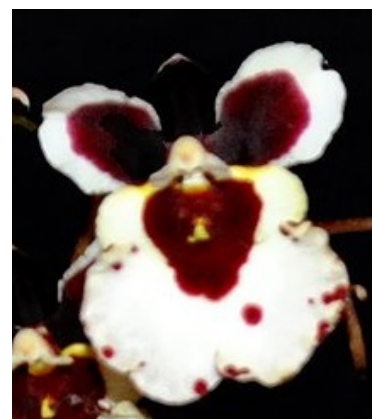
(Rrm. Imua x Rrm. Hula Lady)

Twelve flowers on one 65 cm arching inflorescence; sepals erect, dark mahogany overlay leaving apice white marginally; petals flat, slightly undulated, margins undeulated, white, dark mahogany overlay; labellum yellow, spotted dark carmine, mask dark carmine, keels dark carmine yellow marginally; column yellow; substance firm; texture matte.

Rodrurnia Helmut Rohrl – Quality Award Description

(Rrm. Apple Hollow x Tolu. Irene Gleason)

Thirty-five beautifully arranged flowers and eight buds on two up to 62-cm long inflorescences; sepals white heavily overlaid dark cherry-red, petals oval, recurved, white, dark cherry overlay basally; lip tri-lobed, mid-lobed notched, round, full, white, randomly blotched cherry-red, mask dark cherry-red, kells dark cherry-red with white highlight; column, downward facing column wings, and anther cap white; substance firm; texture matte.



Tolumnia Willowbank Jumbo – Cultural Award Description

(Tolu. Islander x Rrm. Robsan)

One hundred sixty charming flowers and twenty-five buds on fifteen erect to arching inflorescences up to 24 inch (60 cm) long borne from fifty-five fans on a robust clean plant in a 4 inch (10 cm) diameter clay pot; sepals yellow, overlaid brick red; petals yellow, overlaid brick red basal half, blotched distal half; lip tri-lobe, mid-lobe central notch, flat, yellow, heavily spotted red, mask red, kell yellow distally; column, column wings, and anther cap, yellow; substance firm; texture matte.

Tolumnia Pralor – Quality Award Description

(Tolu. Vorarat Belle x Tolu. Passionata Red)

Nine flat flowers and two buds on one erect 11 in (28 cm) inflorescences; sepals erect, recurved, white overlaid dark mahogany; petals white, overlaid dark mahogany basally; lip tri-lobe, mid-lobe deeply notched, white, mid-lobe blushed pink distally, mask dark mahogany, kell mahogany, central kell yellow; column, column wings forward facing, and anther cap, white; substance firm; texture matte.



Rodrurnia Pixie Dancer – Quality Award Description

(Rrm. Bravo x Rrm. Winky)

Eighteen slightly cupped flowers and 3 buds on two slightly arching inflorescences up to 54-cm long; sepals and petals white, overlaid dark mahogany; lip tri-lobe, white, mid-lobe white, heavily blotched mahogany distally, mask dark mahogany, keels dark mahogany white distally; column, column wings forward facing, and anther cap white; substance thin; texture matte.