Hoya celata Kloppenburg, Siar, Mendoza, Cajano & Carandang
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Collected in Quezon, collection number 1-010

This new hoya species is not like any other present hoya species in that the apical area of the outer coronal lobe is concealed (thus the name "celata"), bent sharply under and hidden but most surprising is that it is bilobed. The corolla flattened is larger then *Hoya recurvula*, and the curved under coronal apex is bilobed, anthers are much longer and with the pollinia longer.

Hoya celata Kloppenburg, Siar, Mendoza, Cajano & Carandang sp. nova, typus 71810 CAHUP hic designatus, Section Acanthostemma (Bl.) Kloppenburg sed coronae apex non clare manafestum, sub flexo argute (celto desuper), apexe bilobo. Similis *Hoya recurvula* Kloppenburg sed corolla applanatus ampla 2.1 cm diam. versus 1.4 cm; antherae multis longioribus, pollinis longis, differt.

This new species was assumed to be white flowered *Hoya pubicalyx* Merrill 1918, but it is different in many respects. It loosely fits into the Section Acanthostemma with the outer apex bifid, it is also similar to *Hoya recurvula* Kloppenburg 2000, since the corona apex is turned under at the outer apex. It differs however from any other hoya species so far named. See photomicrographs and measurements below:

Pedicel: with Calyx and ovaries: Enlarged about 10X. Pedicel terete, glabrous, curved 4.0 cm long 0.07 cm in diameter, very slight enlargement at calyx base.

Calyx: sepals do not reach the corolla sinuses, tapered to rounded apex sides undulant with an occasional cilia, base 1.3 overlap, ligules present. Sepals 0.33 cm long and 0.20 cm at the widest.

Ovaries: glabrous long columnar, 0.22 cm tall and base pair   0.11cm wide.
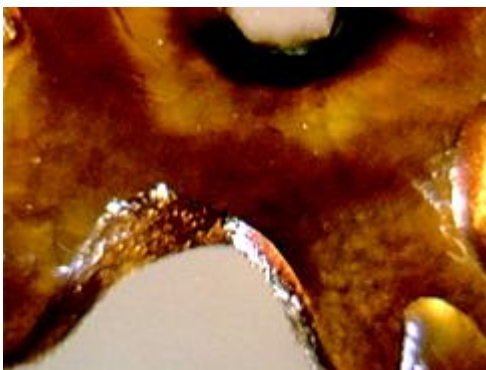
Outside view of the corolla enlarged about 9X. Surface is glabrous, sinuses are conduplicate, lobe apex and edges rolled under.

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Sinus – sinus	0.60 cm
Sinus – center	0.55 cm
Sinus – apex	0.68 cm
Apex – center	1.05 cm
Widest	0.64 cm
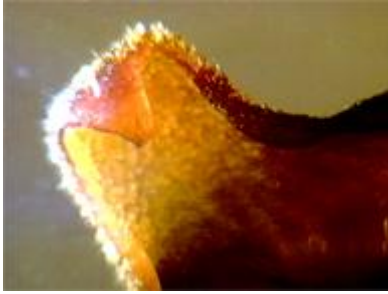
Apical area from below showing apex turned under and inner surface glabrous, also inner edges turned under.


Inner surface of sinus and lobe apical area enlarged about 8X. Inner surface is pubescent all over except the apex area. Coronal apex center above does not reach the corolla sinus.
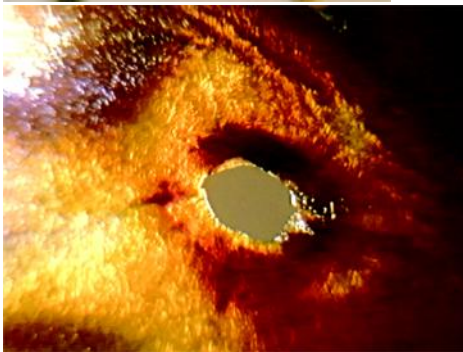
Inner corolla surface enlarged about 9X. Surface is densely pubescent to the center, center slightly thickened.
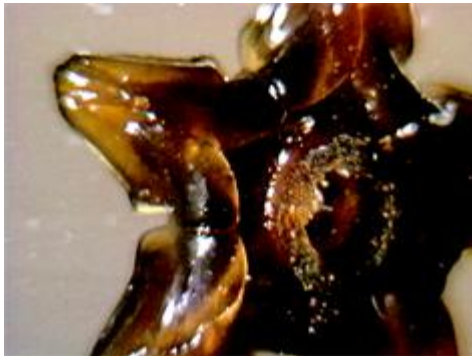
Under side of the corona enlarged about 16X, surfaces are glabrous, lobes are very finely sulcate and channeled down center, open edges rolled under. Area around the raised central column and under rolled edges of anther wings and lobe is evenly granulate, Ventral column about 0.20 cm tall and with a 0.10 cm opening (ovary cavity).
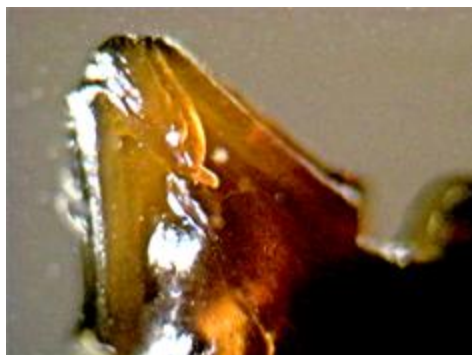

Under coronal apex is tightly revolute and also bifid enlarged about 16X. (The first species with these characteristics). Edges of the outer lobe here rounded, bilobes shelf-like.

Inside view of the corona enlarged about 16X. Inner lobes are raised and dentate, do not cover the extended translucent anthers. Outer lobe appears to be blunt obtuse but is curved edge of tightly revolute bilobed apex, note narrow shelf on upper edge of left, a bilobe extending toward the apex. Dorsal is raised in the center.

Apex – apex	0.57 cm
Apex – center	0.59 cm
Widest (dorsal)	0.32 cm
Ret. – ret.	0.15 cm
Ret. – center	0.14 cm
Aw. – aw.	0.30 cm
Aw. – center	0.28 cm
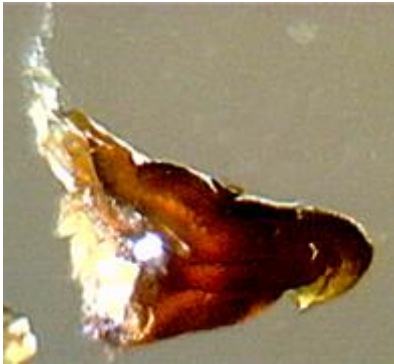
Side view of a coronal lobe enlarged about 32X. Note the long membranous anther (upper left). The raised inner dentate lobe with a raised keel along its dorsal surface, the plump rolled edges of the central part of the lobe and the tightly revolute bifid outer apex.

Greatly enlarged upper surface of the coronal lobe that shows the two side lobes as furrows beside the wider bulbous central portion (apical area below).
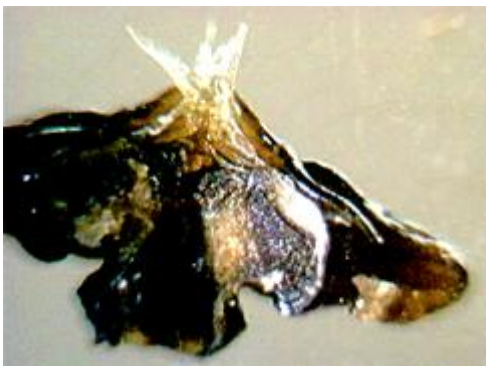
Corona: enlarged about 16X with a lobe removed. Below center is the open column surrounded above by tissue of the coronal lobes. Top center the extended anthers, to the right lower the outer coronal lobe.

Picture of flower cluster and leaf via Dr. Simeona Siar.

Pollinarium enlarged about 160X.

Pollinium
length   0.87 mm
widest   0.25 mm

Retinaculum
length   0.33 mm
shoulder 0.20 mm
waist   0.16 mm
hip   0.20 mm
ext.   0.05 mm

Translators
length   0.10 mm
depth   0.04 mm

Caudicle
bulb. dia. 0.06 mm

Ratios: pol./width   3.5   **Translator/caudicle type**: ls/o
            Pol./ret.   2.3

Detail of small caudicle and short translators.

Leaves: opposite, petiolate, glabrous, obovate, thick, concave slightly on upper surface, base ovate to sub-cordate, apex obtuse to slightly apiculate. Pinnate nervation partially obscure. Clear sap. See table below for measurements. Peduncles long twisted.

Hoya from Quezon c. Quezon 1 - 010

Leaf sample	Length (cm)	Width (cm)	Thickness (cm)
1	12.50	4.20	0.290
2	11.30	4.10	0.240
3	12.50	3.70	0.284
4	9.50	3.70	0.321
5	14.20	4.20	0.150
6	13.50	3.50	0.250
7	15.00	3.60	0.250
8	13.20	3.10	*0.350*
9	10.80	3.80	0.285
10	8.70	3.00	0.215
Mean	**12.12**	**3.69**	**0.264**
Range	*8.7-15.0*	*3.0-4.2*	*0.150-0.350*

References:

1. Hoya pubicalyx Merrill in The Philippine Journal of Science 13 (1908) 331.
2. Hoya recurvula Kloppenburg in Fraterna 13/4:2000,9-12y
3. Philippine Hoya Species by Dale Kloppenburg Eleventh edition 2009 Modified 22 August 2011, 704 pages.

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Dr. Simeona "Monina" V. Siar was head of the Plant Breeding Department at UPLB helped me (Dale Kloppenburg) greatly for years with hoya species, we will all miss her, She died 19 December 2011.

Holotype Sheet

This species was collected by George Mendoza along the shoreline, hanging on rock cliffs formation in Mauban, province of Quezon on the month of March 2009.
All pictures below of plant and collection location by George Mendoza.