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**Table S1.** Polar and equatorial diameters, and volume of pollen grains from feeding and pollination stamens of *Melastoma candidum*.

Individual No.	Flower No.	Feeding stamen			Pollinating stamen		
		equatorial diameter ( $\mu\text{m}$ )	polar diameter ( $\mu\text{m}$ )	volume ( $\mu\text{m}^3$ )	equatorial diameter ( $\mu\text{m}$ )	polar diameter ( $\mu\text{m}$ )	volume ( $\mu\text{m}^3$ )
1	1	22.31	25.62	7667.55	20.51	25.11	6771.08
1	1	22.09	26.87	8350.83	19.76	27.16	7632.12
1	1	22.06	29.03	9734.15	21.33	24.78	6857.91
1	1	20.24	24.17	6191.02	22.85	25.75	7933.03
1	1	21.17	26.98	8068.70	21.28	26.50	7824.60
1	1	23.17	25.55	7919.66	20.37	26.14	7287.87
1	1	20.69	27.68	8300.25	21.32	24.35	6618.87
1	1	21.86	29.10	9692.48	19.66	25.36	6620.35
1	1	20.52	27.41	8072.24	23.60	26.68	8795.94
1	1	22.01	27.16	8501.16	20.84	26.19	7484.58
1	1	24.06	30.25	11527.76	20.98	25.75	7283.81
1	1	23.35	30.45	11336.01	20.63	25.74	7156.73
1	1	23.45	29.04	10354.63	22.01	26.50	8093.02
1	1	21.11	28.22	8802.40	23.65	29.44	10732.61
1	1	22.45	28.58	9601.51	20.18	27.61	8054.76
1	1	22.03	28.58	9421.88	22.60	27.53	8968.49
1	1	21.10	25.59	7234.72	22.52	27.90	9178.58
1	1	21.65	26.11	7728.06	20.98	26.86	7925.31
1	1	21.75	27.74	8763.36	21.52	25.58	7372.96
1	1	21.60	28.25	9025.87	21.41	26.10	7636.53
2	2	20.18	24.26	6219.03	20.66	27.48	8168.88
2	2	21.95	28.13	9094.37	22.39	28.88	9777.93
2	2	21.38	25.80	7451.53	21.44	28.57	9163.13
2	2	20.42	25.70	7061.88	21.11	28.38	8902.49
2	2	20.69	23.92	6198.43	21.52	28.10	8897.20
2	2	20.08	26.17	7200.62	19.60	28.80	8512.16
2	2	21.53	26.42	7868.80	21.14	27.00	8069.21
2	2	21.13	24.52	6651.80	20.11	28.98	8843.16
2	2	19.34	24.42	6038.74	20.45	25.51	6968.08
2	2	20.42	25.26	6822.15	21.25	25.92	7475.28
2	2	21.66	26.07	7707.95	20.70	28.15	8588.67

2	2	22.21	27.47	8775.35	22.46	26.55	8289.67
2	2	23.59	27.07	9051.14	20.42	25.87	7155.62
2	2	19.70	27.26	7665.08	20.00	25.38	6745.46
2	2	23.11	28.22	9636.35	20.18	27.70	8107.36
2	2	20.51	24.91	6663.64	21.25	26.82	8003.41
2	2	21.90	26.56	8089.08	23.50	27.60	9373.13
2	2	21.74	26.23	7831.68	22.08	26.55	8149.42
2	2	22.21	27.33	8686.13	22.42	26.21	8064.33
2	2	23.57	27.76	9510.36	21.53	27.74	8674.72
3	3	21.73	25.66	7491.55	23.20	27.27	9033.52
3	3	23.25	28.44	9846.47	21.71	24.89	7042.20
3	3	21.38	26.55	7891.06	22.90	27.55	9100.75
3	3	21.66	27.27	8433.88	21.60	25.75	7499.06
3	3	21.77	25.26	7273.17	21.42	24.14	6535.71
3	3	24.01	26.45	8795.13	21.71	24.29	6706.77
3	3	23.75	28.94	10415.00	22.39	26.78	8407.64
3	3	22.09	26.21	7945.63	23.80	26.29	8613.05
3	3	21.86	26.71	8165.76	21.60	27.01	8250.90
3	3	22.14	27.30	8639.76	23.84	27.05	9133.55
3	3	23.38	26.22	8416.05	23.17	26.09	8257.96
3	3	22.89	27.03	8756.62	21.77	27.64	8708.29
3	3	21.38	26.50	7861.37	21.60	25.68	7458.34
3	3	22.29	27.10	8571.31	22.17	27.59	8836.24
3	3	22.34	28.36	9407.93	23.99	28.37	10109.92
3	3	22.21	25.57	7603.41	23.11	27.61	9224.26
3	3	23.78	28.92	10413.75	22.25	28.04	9159.77
3	3	22.11	26.20	7946.76	21.25	25.85	7434.96
3	3	21.88	26.72	8179.35	20.51	26.32	7439.37
3	3	22.12	27.33	8650.93	22.54	27.20	8731.53
4	4	20.83	24.83	6724.21	21.90	25.46	7432.92
4	4	19.96	22.93	5494.99	21.75	24.17	6652.90
4	4	20.51	23.32	5840.11	21.94	24.42	6850.57
4	4	20.85	24.10	6340.72	20.06	25.46	6808.42
4	4	19.82	23.66	5809.41	20.88	23.78	6182.34
4	4	20.98	24.52	6604.58	20.76	23.05	5775.21
4	4	20.84	24.43	6512.43	21.41	24.21	6570.60
4	4	20.76	23.92	6219.40	21.13	24.69	6744.35
4	4	19.73	24.52	6211.07	20.21	22.68	5443.16

4	4	20.70	25.43	7009.09	20.79	24.00	6270.12
4	4	20.08	23.23	5673.63	21.17	24.72	6773.55
4	4	19.29	26.08	6869.83	20.73	24.46	6493.98
4	4	20.07	25.19	6668.10	19.98	25.04	6559.38
4	4	21.32	27.07	8180.17	20.36	24.15	6217.43
4	4	22.05	25.43	7466.21	21.07	23.95	6328.11
4	4	20.43	26.86	7717.54	21.33	28.22	8894.13
4	4	20.24	24.75	6491.72	20.42	25.26	6822.15
4	4	20.80	27.38	8164.49	21.13	26.22	7606.13
4	4	21.38	24.18	6545.14	21.01	24.06	6368.19
4	4	22.22	29.10	9852.10	21.20	26.23	7637.15
5	5	20.90	25.70	7227.88	23.12	25.77	8039.25
5	5	22.24	24.30	6876.16	22.12	24.97	7221.39
5	5	21.81	24.40	6798.83	23.68	25.20	7873.75
5	5	21.75	25.68	7510.14	21.70	26.50	7979.03
5	5	20.02	24.83	6462.73	20.43	22.21	5276.72
5	5	22.36	25.76	7768.95	23.18	27.08	8900.40
5	5	21.22	25.67	7321.43	22.56	27.07	8655.94
5	5	22.67	27.55	9009.35	21.23	27.80	8590.89
5	5	21.66	24.92	7042.93	23.90	26.58	8841.10
5	5	19.73	24.95	6430.83	23.66	25.63	8137.87
5	5	22.46	24.72	7186.30	21.51	25.70	7438.84
5	5	20.66	25.92	7267.73	22.70	27.35	8890.77
5	5	22.36	26.06	7950.95	20.84	28.58	8912.94
5	5	21.06	24.85	6809.41	20.09	26.96	7645.72
5	5	20.83	23.49	6018.02	19.44	25.36	6546.26
5	5	22.41	25.85	7840.82	22.09	28.03	9087.42
5	5	21.84	25.77	7594.17	20.39	26.23	7345.35
5	5	23.17	26.18	8315.03	23.34	25.96	8235.86
5	5	22.08	25.54	7541.18	21.74	26.61	8060.24
5	5	20.20	25.15	6690.00	20.85	27.04	7982.12
6	6	22.00	27.07	8441.08	23.31	27.35	9129.68
6	6	22.25	25.93	7833.10	22.59	26.19	8113.08
6	6	21.75	26.93	8259.06	23.68	25.93	8336.53
6	6	21.33	25.85	7462.95	20.82	26.40	7597.79
6	6	24.51	26.90	9286.38	21.71	26.14	7767.29
6	6	22.75	24.69	7261.43	21.77	26.26	7860.43
6	6	23.45	30.23	11220.64	21.44	26.68	7990.89

6	6	21.70	29.79	10083.22	21.87	25.26	7306.58
6	6	21.48	27.60	8567.44	21.05	24.52	6626.61
6	6	23.34	29.55	10671.23	21.60	24.04	6536.14
6	6	22.40	27.98	9182.10	20.70	26.63	7686.19
6	6	23.94	31.55	12477.33	19.96	26.26	7206.90
6	6	23.37	30.88	11668.42	21.52	26.31	7799.78
6	6	21.74	30.25	10416.19	20.11	25.36	6771.88
6	6	22.03	28.35	9270.84	21.75	26.23	7835.28
6	6	22.89	28.75	9906.50	21.66	26.45	7934.30
6	6	22.69	28.18	9434.42	21.77	26.77	8168.72
6	6	21.92	26.11	7824.43	21.50	24.21	6598.22
6	6	21.77	27.01	8315.84	21.71	24.76	6968.83
6	6	22.56	26.83	8503.13	23.15	26.89	8762.69
7	7	21.71	30.07	10278.39	22.36	26.77	8390.10
7	7	21.08	28.62	9040.83	21.38	27.09	8215.32
7	7	21.13	28.84	9202.14	22.56	26.34	8195.38
7	7	20.58	28.62	8826.39	21.81	26.40	7959.07
7	7	22.44	29.13	9970.17	20.49	24.90	6651.80
7	7	21.73	29.85	10137.88	22.69	25.86	7944.93
7	7	22.16	28.44	9384.85	25.08	25.63	8626.28
7	7	22.97	30.43	11136.88	21.82	27.16	8427.77
7	7	20.72	29.67	9550.44	22.48	27.26	8746.75
7	7	23.93	28.51	10184.41	22.06	28.38	9301.16
7	7	22.08	28.92	9669.28	21.84	27.94	8926.97
7	7	22.42	22.08	5723.11	21.60	26.71	8068.64
7	7	23.41	28.85	10202.15	21.92	24.75	7030.55
7	7	22.96	28.74	9929.88	22.60	27.63	9033.77
7	7	23.00	28.75	9954.10	21.48	25.77	7468.99
7	7	24.01	27.49	9500.36	21.11	26.19	7581.55
7	7	21.33	28.35	8976.26	21.50	25.53	7337.34
7	7	22.68	26.86	8567.49	20.75	26.26	7492.14
7	7	21.90	27.20	8483.61	22.41	25.87	7852.96
7	7	23.00	27.26	8949.08	21.75	26.72	8130.75
8	8	22.37	28.40	9447.16	22.37	26.56	8262.68
8	8	23.26	27.08	8931.11	21.48	24.41	6701.45
8	8	22.78	29.55	10415.19	22.74	24.35	7059.71
8	8	21.38	26.71	7986.46	21.08	25.58	7222.21
8	8	20.88	27.61	8334.16	22.08	25.30	7400.12

8	8	23.48	27.85	9535.58	20.28	26.50	7456.90
8	8	22.59	29.01	9954.29	21.73	25.48	7386.81
8	8	23.53	29.19	10497.57	21.26	26.14	7606.29
8	8	22.52	27.35	8820.27	21.15	25.67	7297.28
8	8	22.93	27.60	9145.78	22.58	29.17	10059.94
8	8	21.17	27.90	8628.35	21.58	27.05	8267.70
8	8	21.81	28.08	9004.27	20.74	27.69	8326.32
8	8	22.38	28.70	9652.12	20.75	27.28	8085.47
8	8	21.47	27.59	8557.25	22.20	28.35	9342.38
8	8	22.09	28.72	9540.33	22.17	27.53	8797.85
8	8	22.25	28.95	9763.96	22.09	27.94	9029.16
8	8	21.77	28.57	9304.17	20.47	26.14	7323.65
8	8	21.44	27.85	8707.11	21.95	28.49	9328.63
8	8	21.46	29.15	9547.85	22.42	28.30	9401.72
8	8	22.26	28.77	9647.25	20.98	27.50	8307.48
9	9	21.48	28.80	9328.63	22.36	29.12	9927.80
9	9	23.50	30.53	11468.86	20.42	27.72	8215.63
9	9	22.57	30.03	10657.14	21.93	27.10	8432.88
9	9	23.37	30.48	11368.08	20.97	28.04	8632.83
9	9	21.92	27.92	8946.85	19.75	26.53	7278.47
9	9	21.95	28.13	9094.37	20.98	27.63	8386.21
9	9	21.92	28.47	9302.81	22.07	27.30	8612.44
9	9	22.36	30.38	10805.53	21.70	28.54	9254.78
9	9	22.79	30.23	10904.84	22.06	27.97	9036.27
9	9	23.25	29.52	10608.51	21.86	25.80	7618.83
9	9	21.77	27.81	8815.75	22.35	27.31	8728.10
9	9	21.51	29.15	9570.09	21.25	29.76	9854.25
9	9	23.47	27.05	8991.79	21.51	27.80	8704.20
9	9	21.56	25.67	7438.74	21.99	29.75	10190.55
9	9	22.76	27.26	8855.69	21.77	26.50	8004.77
9	9	20.49	23.87	6112.87	21.96	28.75	9504.01
9	9	22.08	25.23	7359.23	22.73	28.89	9933.29
9	9	20.23	23.29	5745.57	21.32	27.33	8338.06
9	9	21.71	25.38	7322.20	21.81	28.90	9537.84
9	9	23.23	29.50	10585.02	22.80	27.98	9346.07

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**Table S2.** Germination rate (%) of pollen grains from feeding and pollination stamens of *Melastoma candidum*.

Individual No.	Feeding stamen	Pollinating stamen
1	83.0	89.0
2	61.0	63.0
3	70.0	65.0
4	60.0	82.0
5	81.0	81.0
6	74.0	62.0
7	33.0	36.0
8	61.0	49.0
9	69.0	56.0
10	50.0	47.0

**Table S3.** Number of pollen grains per intact anther from feeding and pollinating stamens in each of the 10 flowers.

Flower No.	Number of pollen grains per anther	
	Feeding stamen	Pollinating stamen
1	133292	159688
2	86625	273583
3	148925	277725
4	176167	312083
5	109375	155925
6	153125	246167
7	241938	328271
8	265500	395125
9	222500	392375
10	135625	197925



**Table S4.** Number of pollen grains remaining after a single visit by *Xylocopa flavifrons*. The percentage of pollen grains remaining on each anther was calculated using the initial number of pollen grains in the intact feeding and pollinating stamens as the baseline (100%).

Flower No.	Feeding stamen		Pollinating stamen	
	Number of remaining pollen grains per anther	Percentage of remaining pollen (%)	Number of remaining pollen grains per anther	Percentage of remaining pollen (%)
1	85875.0	51.3	251875.0	92.0
2	42625.0	25.5	185250.0	67.6
3	49270.8	29.4	120937.5	44.2
4	67187.5	40.2	197083.3	72.0
5	63000.0	37.7	212125.0	77.4
6	50125.0	30.0	126375.0	46.1
7	17375.0	10.4	169750.0	62.0
8	21250.0	12.7	131625.0	48.1
9	50500.0	30.2	146750.0	53.6
10	73375.0	43.9	184375.0	67.3
11	110000.0	65.7	236375.0	86.3
12	125375.0	74.9	201000.0	73.4

**Table S5.** Thoracic width of each bee species

Bee species	Individual No.	Sex	Thoracic width (mm)
<i>Xylocopa flavifrons</i>	1	female	7.81
	2	female	7.92
	3	female	8.36
	4	female	8.45
	5	female	8.24
	6	female	7.95
	7	female	8.07
	8	female	7.72
	9	male	8.30
	10	female	8.71
	11	female	8.36
	12	female	8.11
	13	female	6.93
	14	female	7.52
	15	female	8.08
	16	female	8.77
	17	male	7.91
	18	male	7.73
	19	female	7.75
	20	female	8.14
	21	female	8.20
	22	female	7.39
<i>Amegilla urens</i>	1	female	5.30
	2	female	5.43
	3	female	5.33
	4	female	5.37
	5	female	5.40
	6	female	5.39
	7	female	4.98
	8	female	5.22
	9	female	5.28
	10	female	5.31

	11	female	5.11
	12	male	4.32
	13	female	4.94
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<i>Amegilla dulcifera</i>	1	male	4.39
	2	female	5.25
	3	female	5.35
	4	male	4.80
	5	male	4.82
	6	male	4.73
	7	female	5.46
	8	male	4.86
	9	female	5.53
	10	male	4.17
	11	male	4.00
	12	male	4.71
	13	male	4.43
	14	male	4.64
	15	female	5.06
	16	female	5.09
	17	female	4.95
	18	female	5.06
	19	female	4.97
	20	female	5.25
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<i>Ceratina okinawana</i>	1	male	2.39
	2	male	2.16
	3	male	2.10
	4	female	2.72
	5	female	2.50
	6	female	2.30
	7	female	2.27
	8	female	2.14
	9	female	2.44
	10	female	2.26
	11	female	2.36

12	female	2.45
13	female	2.62
14	female	2.41
15	male	2.19
16	male	2.02
17	male	2.37
18	female	2.22
19	female	2.40
20	female	2.39
21	male	2.05
22	male	2.27
23	male	2.11
24	male	2.05

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**Table S6.** Body weight of each bee species

Bee species	Individual No.	Sex	Body weight (g)
<i>Xylocopa flavifrons</i>	1	male	0.517
	2	male	0.539
	3	female	0.790
	4	female	0.657
	5	male	0.605
	6	female	0.643
	7	female	0.527
	8	female	0.551
	9	female	0.483
	10	female	0.532
	11	female	0.514
	12	female	0.451
	13	female	0.459
	14	female	0.505
	15	female	0.420
	16	female	0.468
	17	female	0.529
	18	-	0.529
<i>Amegilla dulcifera</i>	1	female	0.211
	2	male	0.096
	3	male	0.107
	4	male	0.093
	5	female	0.174
	6	female	0.165
	7	male	0.094
	8	male	0.091
	9	female	0.178
	10	male	0.101
	11	female	0.159
	12	male	0.086
	13	male	0.114
	14	female	0.153

	15	male	0.087
	16	female	0.157
	17	female	0.175
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<i>Ceratina okinawana</i>	1	female	0.023
	2	female	0.021
	3	female	0.020
	4	female	0.017
	5	female	0.026
	6	male	0.015
	7	female	0.012
	8	female	0.013
	9	male	0.020
	10	female	0.013
	11	female	0.013
	12	female	0.019
	13	female	0.018
	14	male	0.022
	15	female	0.014
	16	female	0.016
	17	female	0.021
	18	female	0.034
	19	female	0.019
	20	female	0.020
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