

# Supplementary Material

**Supplementary Table 1.** Sites at which flower species were present and the percentage of those where each species of monkey beetle co-occurred. Percentages in the column are the percentage of flower presence sites where the monkey beetle species co-occurs. The dark grey highlights are the three largest percentages in each column; the light grey highlights are the remaining two values in the top five of each column

	No. of sites where flower occurred	<i>Lepithrix ornata</i>	<i>Heterochelus sexlineatus</i>	<i>Heterochelus hybridus</i>	<i>Khoia bilateralis</i>	<i>Heterochelus gonager</i>	<i>Anisochelus neglectus</i>	<i>Lepithrix lineata</i>	<i>Peritrichia pistinaria</i>	<i>Dolichotomicroscelis gracilis</i>	<i>Lepithrix lineata</i> (dark morph)	<i>Heterochelus gonager</i> (dark morph)	<i>Heterochelus rufimanus</i>	<i>Pachycnema crassipes</i>	<i>Dicranocnemus</i>	<i>Heterochelus</i> sp. 3	<i>Heterochelus</i> sp. 2	<i>Chasme jucunda</i>	In Top 3	In Top 5	
<i>Arctotheca calendula</i>	71	30%	82%	38%	8%	30%	18%	14%	32%	6%	4%	8%	23%	11%	8%	11%	11%	10%	0	1	*
<i>Carpobrotus edulis</i>	16	31%	75%	38%	31%	31%	31%	25%	50%	19%	0%	13%	25%	19%	13%	31%	0%	38%	2	4	*
<i>Conicosia pugioniformis</i>	14	21%	93%	64%	50%	36%	71%	57%	93%	36%	29%	7%	0%	0%	29%	7%	7%	43%	11	11	*
<i>Cotula turbinata</i>	64	33%	69%	41%	14%	25%	16%	13%	30%	3%	6%	9%	30%	8%	9%	14%	9%	8%	0	0	*
<i>Dimorphotheca pluvialis</i>	19	32%	68%	63%	32%	32%	47%	32%	63%	16%	21%	5%	32%	5%	21%	11%	21%	37%	3	9	*
<i>Echium</i> sp.	47	34%	68%	40%	19%	32%	21%	19%	47%	6%	2%	9%	28%	9%	9%	13%	13%	13%	0	0	0
<i>Erodium</i> sp.	51	22%	71%	31%	8%	16%	16%	12%	24%	4%	6%	8%	25%	10%	8%	10%	20%	8%	0	1	0
<i>Geissorhiza aspera</i>	12	58%	33%	33%	8%	33%	0%	8%	8%	0%	17%	17%	25%	0%	17%	17%	25%	8%	2	4	0
<i>Heliophila</i> sp.	9	11%	78%	78%	44%	56%	33%	33%	56%	33%	22%	0%	11%	0%	33%	22%	0%	56%	9	11	*
<i>Lobelia erinus</i>	9	44%	33%	11%	33%	11%	0%	11%	22%	0%	0%	22%	33%	0%	11%	11%	33%	11%	2	4	0
<i>Osteospermum monstrosum</i>	10	30%	70%	60%	50%	60%	50%	40%	80%	30%	20%	0%	20%	10%	30%	10%	10%	50%	8	11	0
<i>Oxalis pes-caprae</i>	21	19%	67%	52%	10%	24%	19%	5%	52%	10%	5%	0%	38%	14%	5%	5%	14%	14%	0	3	0
<i>Pelargonium</i> sp. (pink)	14	50%	50%	29%	29%	29%	21%	14%	29%	14%	7%	14%	50%	0%	7%	14%	7%	14%	2	2	*
<i>Romulea rosea</i>	17	29%	82%	35%	6%	29%	6%	0%	41%	6%	0%	18%	24%	6%	18%	12%	0%	0%	0	3	0
<i>Senecio</i> sp. (yellow)	25	36%	60%	56%	28%	24%	20%	12%	48%	4%	8%	12%	20%	12%	8%	8%	8%	16%	0	1	*
<i>Trachyandra ciliata</i>	10	10%	90%	80%	10%	10%	40%	30%	50%	0%	20%	0%	20%	0%	10%	10%	10%	0%	2	7	0
<i>Ursinia nana</i>	14	21%	86%	50%	36%	36%	21%	21%	29%	14%	14%	7%	21%	7%	14%	21%	7%	29%	2	4	*
<i>Vicia</i> sp.	13	31%	38%	15%	15%	15%	8%	8%	23%	8%	0%	23%	38%	8%	0%	8%	0%	0%	2	2	0
<i>Brassicaceae</i> spp. (yellow)	26	46%	62%	38%	23%	35%	15%	19%	42%	0%	0%	15%	35%	15%	8%	23%	4%	4%	2	5	*
<i>Hypochoeris radicata</i>	13	15%	69%	23%	8%	31%	15%	0%	23%	0%	0%	0%	15%	0%	0%	0%	8%	0%	0	0	0
<i>Lysimachia monelli</i>	11	55%	9%	0%	18%	0%	0%	0%	36%	0%	18%	18%	64%	18%	0%	0%	27%	0%	5	5	0

Supplementary Table 2. List of monkey beetle species collected from flowers across the City of Cape Town in 2018 and 2019

Hopliini	Flower	Flower colours
<b>Non-embedding guild (short-wave colours)</b>		
<i>Dolichomicroscelis gracilis</i>	<i>Heliophila africana</i>	blue/violet
<i>Peritrichia pistinaria</i>	<i>Pelargonium</i> , <i>Heliophila africana</i> , <i>Echium</i> sp.	pink, blue/violet
<b>Non-embedding guild (long-wave colours)</b>		
<i>Anisochelus neglectus</i>	<i>Conicosia pugioniformis</i> , <i>Carpobrotus edulis</i>	yellow
<i>Bizanus</i> sp.	<i>Moraea miniata</i>	salmon-pink
<i>Chasme jucunda</i>	<i>Conicosia pugioniformis</i> , <i>Ursinia</i> sp.	yellow
<i>Heterochelus rufimanus</i>	<i>Bolusaia bituminosa</i> , <i>Arctotheca calendula</i>	yellow
<i>Dicranocnemus</i>	<i>Ursinia</i> sp.	yellow
<i>Khoina bilateralis</i>	<i>Conicosia pugioniformis</i>	yellow
<i>Lepithrix lineata</i>	<i>Arctotheca calendula</i> , <i>Conicosia pugioniformis</i> , <i>Senecio</i> sp.	yellow
<i>Lepithrix ornatella</i>	<i>Senecio</i> sp.	yellow
<i>Pachynema crassipes</i>	<i>Carpobrotus edulis</i>	yellow
<i>Platychelus lupinus</i>	<i>Moraea miniata</i>	salmon-pink
<b>Embedding guild (long-wave colours)</b>		
<i>Heterochelus sexlineatus</i> sp.	<i>Arctotheca calendula</i> , <i>Cotula turbinata</i> , <i>Dimorphotheca pluvialis</i>	yellow, white
<i>Heterochelus</i> sp. 2	n/a	
<i>Heterochelus gonager</i>	<i>Dimorphotheca pluvialis</i> , <i>Senecio</i> sp., <i>Arctotheca calendula</i> , <i>Echium</i> sp.	white, yellow, blue/violet
<i>Heterochelus hybridus</i>	<i>Cotula turbinata</i> , <i>Arctotheca calendula</i> , <i>Ursinia nana</i> , <i>Dimorphotheca pluvialis</i> , <i>Pauridia capensis</i> (yellow), <i>Senecio</i> sp.	white, yellow
<i>Ishnochelus</i> sp.	<i>Hypochoeris radicata</i> , <i>Moraea miniata</i>	yellow, salmon-pink/yellow