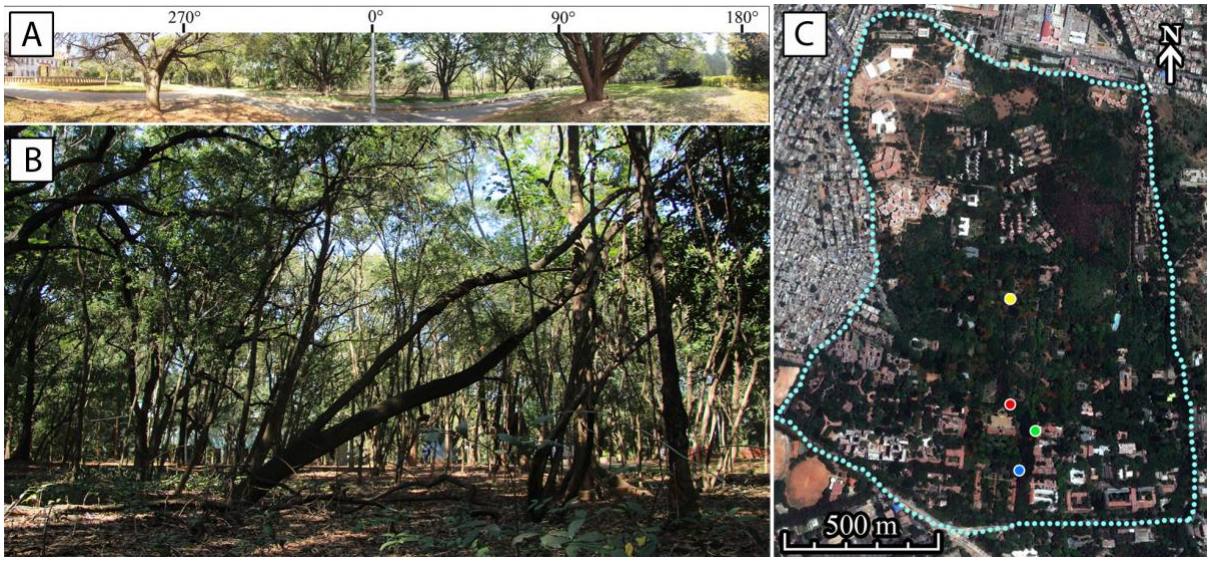

Figure S1. The study site A. A panoramic view of the landscape around the nest N17 (N 13°01'03.2", E 077°34'02.4"). This is one of the few places in the study site where uninterrupted view for more than 50 m can be obtained from ground. B. A view of the foraging landscape of the wasps, approximately in the middle of the Indian Institute of Science (IISc) campus (yellow dot in C). C. A satellite image (courtesy: Google Earth) of the IISc campus. The red, green and blue dots represent the approximate location of nest N17, N18 and N21, respectively. The dotted line represents the physical boundary of the IISc main campus.

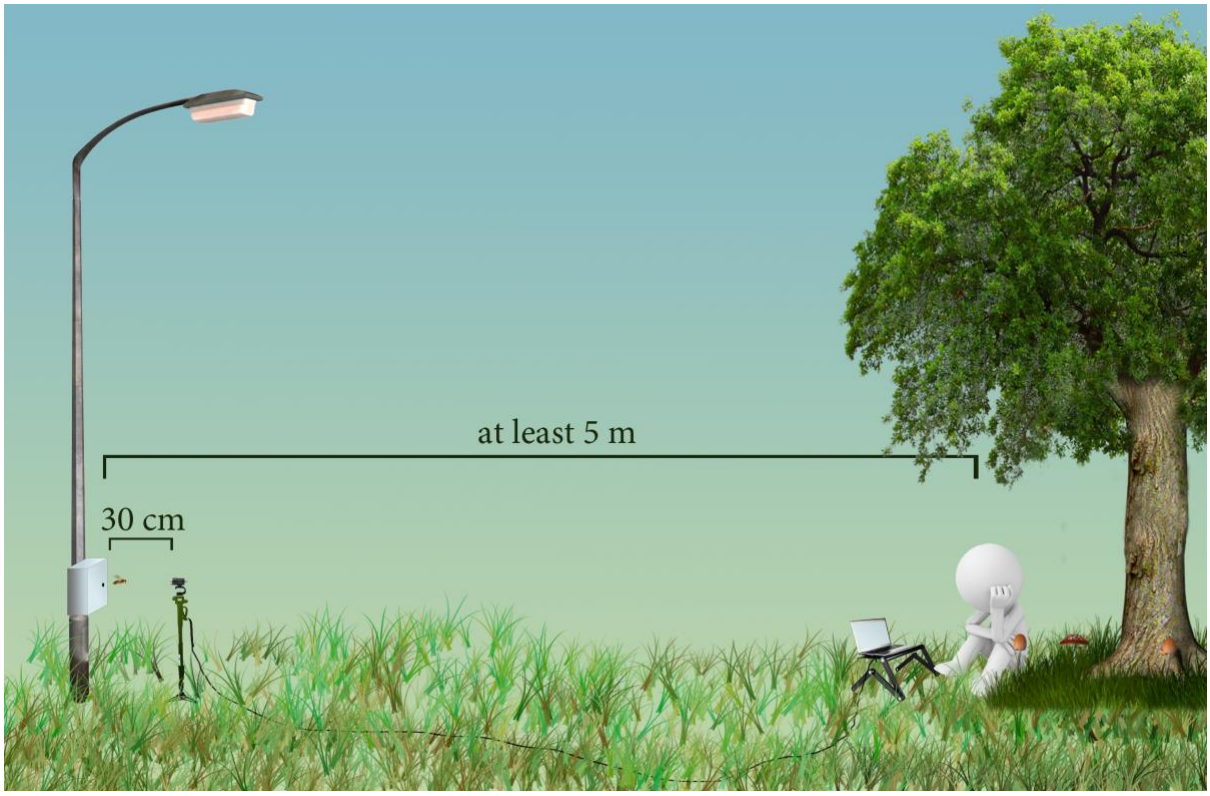

Figure S2. A schematic representation of the experimental set-up. We found all the three experimental colonies of wasps within electric boxes attached to roadside lampposts. By default, these boxes had two holes, one on the frontal lid of the box another at the bottom of the box. We sealed the hole at the bottom so that wasps use the frontal hole as their only entrance and exit. A motion sensitive video camera was placed 30 cm away in front of the frontal hole, so that whenever a wasp came out or went inside the box, the camera started recording the video. The timing of departure and arrival of the wasps, as well as the foraged material could be retrieved from the video. The video was stored into a laptop computer connected to the camera and placed at least 5 m away from the lamppost. An observer, clad in camouflage attire, sat near the laptop and recorded the vanishing direction of the outbound and inbound foraging trips.

Figure S3. A still frame from the collected video data of the nest N21. In this frame, recorded at 16:17:56.36 hrs (mentioned at the bottom right corner of the frame), a wasp with light blue (coded as L) on top of the thorax and dark green (coded as D) below as well as on her abdomen (hence named as LD) is going inside the box through the exit/entrance hole, while wasp with light blue on thorax as well as on abdomen (hence named as LL) is going out for a foraging trip. None of them is carrying anything.

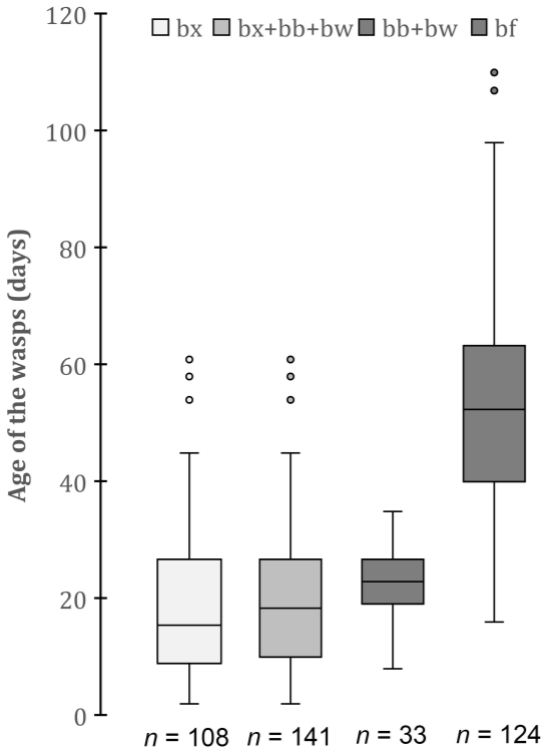

Figure S4: Age of the wasps (binned from all the three nests) that brought nothing (bx), water (bw), building materials (bb), and food (bf) to their nest.

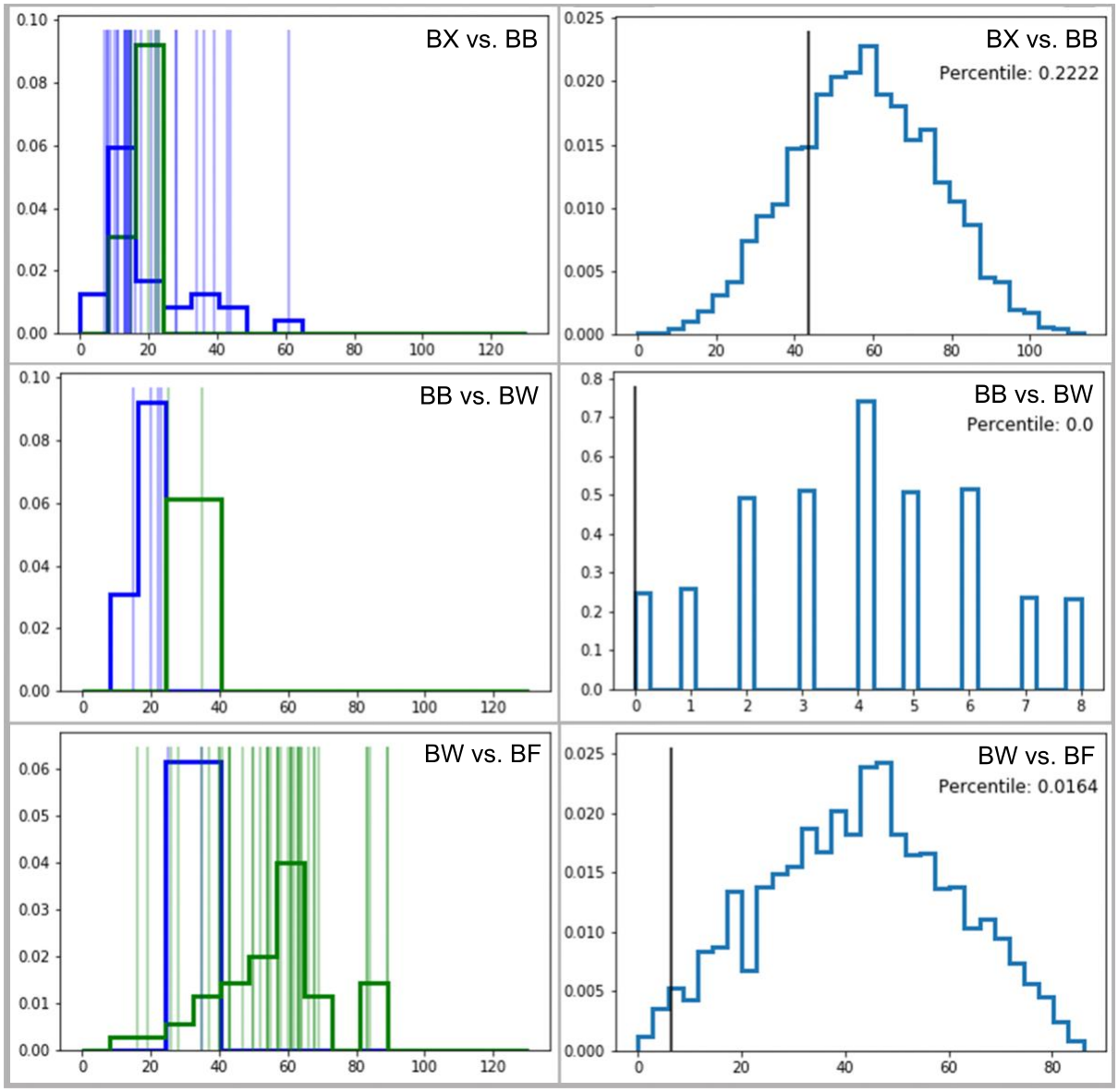

Figure S5A: For N17, *p* values for Mann-Whitney U test with Monte Carlo permutation test statistics show that wasps that brought food (BF) were significantly older than the wasps that brought water (BW) ($p = 0.016$), and BW wasps were older than the wasps that brought building materials (BB) ($p < 0.01$). No significant difference is detected between the age of the BB wasps and the wasps that brought nothing (BX) ($p = 0.22$).

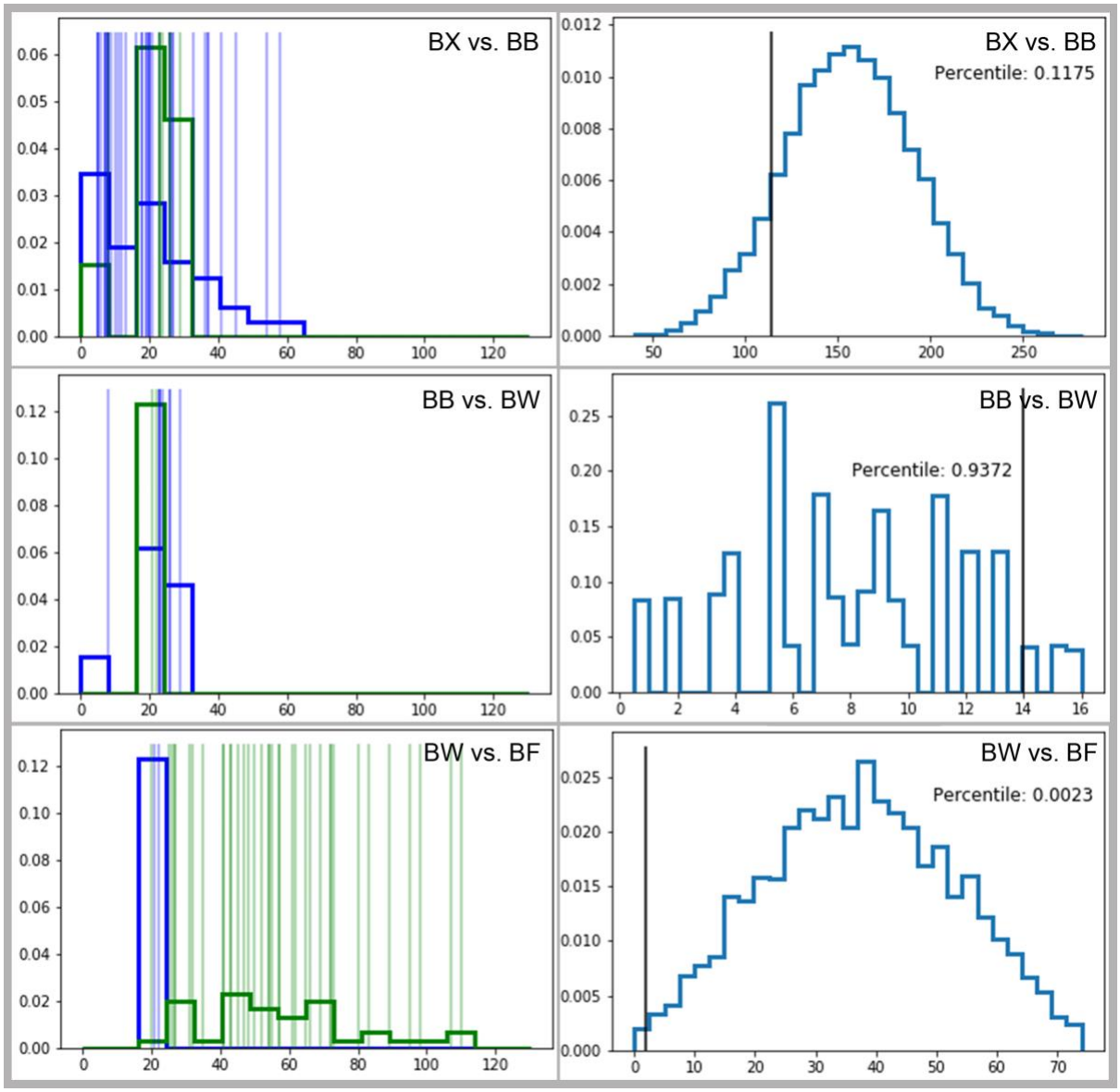

Figure S5B: For N18, *p* values for Mann-Whitney U test with Monte Carlo permutation test statistics show that wasps that brought food (BF) were significantly older than the wasps that brought water (BW) ($p = 0.002$). No significant difference is detected between the age of the BW wasps and the wasps that brought building materials (BB) ($p = 0.94$), and the BB wasps and the wasps that brought nothing (BX) ($p = 0.12$).

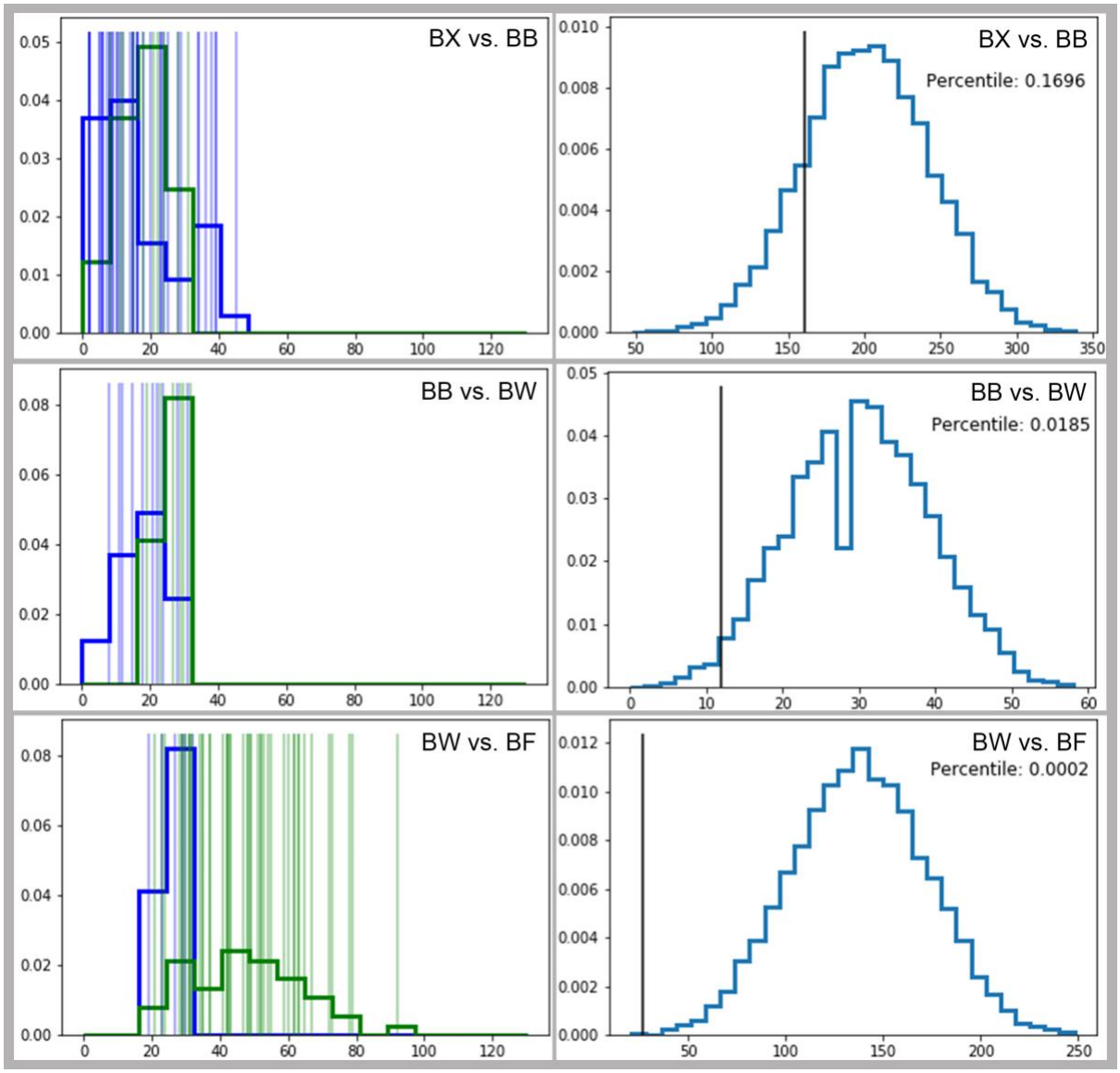

Figure S5C: For N21, *p* values for Mann-Whitney U test with Monte Carlo permutation test statistics show that wasps that brought food (BF) were significantly older than the wasps that brought water (BW) ($p < 0.01$), and BW wasps were older than the wasps that brought building materials (BB) ($p < 0.02$). No significant difference is detected between the age of the BB wasps and the wasps that brought nothing (BX) ($p = 0.17$).

Table S1. Overview of the data collected from three wasp nests.

Nest		N17	N18	N21
All wasps	Number of unique foraging wasps	78	89	105
	Mean age of foragers (in days)	40.00	36.46	32.06
	Total number of trips (3 days)	607	1173	2407
	Mean number of trips/wasp/day	2.59	4.39	7.64
	Mean trip duration (minutes)	87.59	71.23	74.05
foragers that brought food	Number (and percentage among all foraging wasps)	43 (55.13%)	37 (41.57%)	44 (41.90%)
	Mean age (in days)	55.28	57.08	48.41
	Total number of trips (3 days)	358	477	759
	Successful trips	146	197	217
	Proportion of successful trips	0.41	0.41	0.29
	Mean number of trips/wasp/day	2.78	4.30	5.75
	Mean trip duration (minutes)	91.30	98.86	86.43
foragers that brought water	Number (and percentage among all foraging wasps)	2 (2.56%)	1 (1.12%)	3 (2.86%)
	Mean age (in days)	30.00	22	30.33
	Total number of trips (3 days)	90	321	188
	Successful trips	54	311	61
	Proportion of successful trips	0.60	0.97	0.32
	Mean number of trips/wasp/day	15.00	107.00	20.89
	Mean trip duration (minutes)	9.50	1.58	25.51
foragers that brought building material	Number (and percentage among all foraging wasps)	4 (5.13%)	8 (8.99%)	10 (9.52%)
	Mean age (in days)	20.00	22.75	19.00
	Total number of trips (3 days)	38	98	140
	Successful trips	6	14	19
	Proportion of successful trips	0.16	0.14	0.14
	Mean number of trips/wasp/day	3.17	4.08	4.67
	Mean trip duration (minutes)	64.17	27.63	66.78
Wasps that did not bring anything	Number (and percentage among all foraging wasps)	29 (37.18%)	39 (43.82%)	40 (38.09%)
	Mean age (in days)	20.79	20.41	17.05
	Total number of trips (3 days)	121	226	373
	Mean number of trips/wasp/day	1.39	1.93	3.11
	Mean trip duration (minutes)	90.69	52.32	72.27
Wasps that brought building material (B) and water (W)	Number (and percentage among all foraging wasps)		1 (1.12%)	3 (2.86%)
	Mean age (in days)		21	23.00
	Total number of trips (3 days)		12	511
	Successful trips	NA	B = 1, W = 1	B=5, W=347
	Proportion of successful trips		0.17	0.69
	Mean number of trips/wasp/day		4.00	56.78
	Mean trip duration (minutes)		40.91	5.93
Wasps that brought water (W) and food (F)	Number (and percentage among all foraging wasps)		1 (1.12%)	1 (0.95%)
	Age (in days)		39	64
	Total number of trips (3 days)		12	178
	Successful trips	NA	W = 1, F = 1	F = 3, W=135
	Proportion of successful trips		0.17	0.78
	Mean number of trips/wasp/day		4.00	59.33
	Mean trip duration (minutes)		189.73	4.78
Wasps that brought building material (B) and food (F)	Number (and percentage among all foraging wasps)		2 (2.24%)	3 (2.86%)
	Mean age (in days)		36.5	31.00
	Total number of trips (3 days)		27	47
	Successful trips	NA	B=2, F=12	B=3, F=12
	Proportion of successful trips		0.52	0.32
	Mean number of trips/wasp/day		4.5	5.22
	Mean trip duration (minutes)		93.86	103.56
Wasps that brought building material (B), water (W) and food (F)	Number (and percentage among all foraging wasps)			1 (0.95%)
	Age (in days)			47
	Total number of trips (3 days)			221
	Successful trips	NA	NA	B=1, W=128, F=2
	Proportion of successful trips			0.62
	Mean number of trips/wasp/day			73.67
	Mean trip duration (minutes)			3.84