I - Colony Sizes

a - Experiment 1, winter replicate

Colony	Workers	Queen	Sexuals	Brood
W_1	101	1	0	229
W_2	88	0	0	213
W_3	100	1	0	117
W_4	120	1	0	348
W_5	130	1	0	282
W_6	104	1	0	109
W_7	108	2	0	280
W_8	126	1	0	180
W_9	206	1	0	173
W_10	96	1	0	196
W_11	84	0	0	321
W_12	80	1	0	307
W_13	60	0	0	85
W_14	151	0	0	183
W_15	152	0	0	336
W_16	74	1	0	155
W_17	87	1	0	185
W_18	50	1	0	185
W_19	43	1	0	155
W_20	82	1	0	129
W_21	96	1	0	294
W_22	114	2	0	216
W_23	104	1	0	549
W_24	96	1	0	218

b - Experiment 1, summer replicate

Colony	Workers	Queen	Sexuals	Brood
S_1	24	0	2	79
S_2	173	1	0	52
S_3	126	1	2	102
S_4	95	1	0	76
S_5	29	1	1	13
S_6	47	0	12	13
S_7	91	0	1	86
S_8	108	0	1	104
S_9	76	0	2	43
S_10	72	1	5	57
S_11	51	1	0	61
S_12	102	1	2	45
S_13	149	1	0	58
S_14	72	1	6	15
S_15	113	1	3	69
S_16	114	1	3	123
S_17	76	1	21	67
S_18	114	1	5	293
S_19	189	1	13	62
S_20	241	1	17	218
S_21	149	1	2	123
S_22	141	1	0	88
S_23	117	1	9	115
S_24	96	1	4	167

c - Experiment 2 (autumn)

Colony	Workers	Queen	Sexuals	Brood
A_1	95	0	0	46
A_2	68	1	0	44
A_3	86	1	0	25
A_4	104	1	0	28
A_5	104	0	0	18
A_6	63	0	0	13
A_7	124	1	0	27
A_8	79	0	0	33
A_9	120	1	0	65
A_10	98	0	0	NA
A_11	93	1	0	43
A_12	90	1	0	47
A_13	78	2	0	NA
A_14	97	1	0	54
A_15	84	2	0	25
A_16	105	1	0	NA
A_17	96	1	0	45
A_18	83	1	0	NA
A_19	91	1	0	NA
A_20	65	1	0	NA
A_21	65	0	0	25
A_22	87	0	0	NA
A_23	109	0	0	48
A_24	103	1	0	66
A_25	69	1	0	49
A_26	86	1	0	NA
A_27	67	1	0	NA
A_28	49	1	0	NA
A_29	61	2	0	29
A_30	38	1	0	39
A_31	136	1	0	84
A_32	62	1	0	NA
A_33	100	1	0	64
A_34	84	1	0	33
A_35	116	1	0	53
A_36	90	0	0	76
A_37	76	1	0	55
A_38	126	1	0	41
A_39	71	1	0	10
A_40	57	1	0	12

II - Emigration Outcome

A - All items (adults + brood) pooled

a - Experiment 1, winter replicate

Control treatment

Reference nest: Marked Nest, Familiar Position

Colony	Treatment	Prop. of items in Ref. Nest	Cohesion
W_1	Control	0.893	0.785
W_2	Control	0.31	0.38
W_3	Control	1	1
W_4	Control	0.933	0.865
W_5	Control	0.77	0.539
W_6	Control	1	1
W_7	Control	0.79	0.579
W_8	Control	0	1
W_9	Control	1	1
W_10	Control	0.689	0.379
W_11	Control	1	1
W_12	Control	1	1
W_13	Control	1	1
W_14	Control	1	1
W_15	Control	0.367	0.266
W_16	Control	1	1
W_17	Control	1	1
W_18	Control	1	1
W_19	Control	1	1
W_20	Control	0	1
W_21	Control	1	1
W_22	Control	0.57	0.14
W_23	Control	1	1
W_24	Control	0	1

Removal treatment
Reference nest: Unmarked Nest, Familiar Position

Colony	Treatment	Prop. of items in Ref. Nest	Cohesion
W_1	Removal	0.864	0.728
W_2	Removal	1	1
W_3	Removal	0.638	0.277
W_4	Removal	0.246	0.508
W_5	Removal	0.464	0.072
W_6	Removal	0	1
W_7	Removal	0.213	0.573
W_8	Removal	1	1
W_9	Removal	0.966	0.932
W_10	Removal	1	1
W_11	Removal	0.59	0.18
W_12	Removal	0.42	0.16
W_13	Removal	1	1
W_14	Removal	0.823	0.647
W_15	Removal	1	1
W_16	Removal	0	1
W_17	Removal	0.564	0.128
W_18	Removal	0	1
W_19	Removal	0	1
W_20	Removal	1	1
W_21	Removal	0.673	0.345
W_22	Removal	1	1
W_23	Removal	0.448	0.104
W_24	Removal	1	1

Exchange treatment
Reference nest: Unmarked Nest, Familiar Position

Colony	Treatment	Prop. of items in Ref. Nest	Cohesion
W_1	Exchange	0	1
W_2	Exchange	0.588	0.176
W_3	Exchange	0.815	0.63
W_4	Exchange	1	1
W_5	Exchange	0.661	0.323
W_6	Exchange	1	1
W_7	Exchange	0	1
W_8	Exchange	1	1
W_10	Exchange	0	1
W_11	Exchange	1	1
W_12	Exchange	1	1
W_13	Exchange	1	1
W_14	Exchange	0.779	0.558
W_15	Exchange	0.108	0.784
W_16	Exchange	0.339	0.322
W_17	Exchange	0	1
W_18	Exchange	0.576	0.153
W_19	Exchange	0	1
W_20	Exchange	0	1
W_21	Exchange	1	1
W_22	Exchange	0.696	0.392
W_23	Exchange	0	1
W_24	Exchange	1	1

b - Experiment 1, summer replicate

Control treatment

Reference nest: Marked Nest, Familiar Position

Colony	Treatment	Prop. of items in Ref. Nest	Cohesion
S_1	Control	0	1
S_2	Control	0	1
S_3	Control	0	1
S_4	Control	0	1
S_5	Control	1	1
S_6	Control	0	1
S_7	Control	0	1
S_8	Control	1	1
S_9	Control	0	1
S_10	Control	1	1
S_11	Control	0	1
S_12	Control	0	1
S_13	Control	0	1
S_14	Control	0	1
S_15	Control	0	1
S_16	Control	1	1
S_17	Control	0	1
S_18	Control	0.286	0.427
S_20	Control	1	1
S_21	Control	0	1
S_22	Control	0.726	0.452
S_23	Control	0	1
S_24	Control	1	1

Removal treatment

Reference nest: Unmarked Nest, Familiar Position

Colony	Treatment	Prop. of items in Ref. Nest	Cohesion
S_1	Removal	0.81	0.619
S_2	Removal	0.579	0.159
S_3	Removal	0.671	0.342
S_4	Removal	1	1
S_5	Removal	1	1
S_6	Removal	0	1
S_7	Removal	0.596	0.192
S_8	Removal	0	1
S_9	Removal	0.186	0.629
S_10	Removal	1	1
S_11	Removal	1	1
S_12	Removal	0.313	0.373
S_13	Removal	0.837	0.673
S_14	Removal	1	1
S_15	Removal	0.456	0.088
S_16	Removal	0.358	0.283
S_17	Removal	0.596	0.192
S_18	Removal	0.665	0.331
S_19	Removal	0.434	0.132
S_20	Removal	0.393	0.215
S_21	Removal	0.483	0.034
S_22	Removal	0.676	0.351
S_23	Removal	0.393	0.215
S_24	Removal	0.638	0.276

Exchange treatment
Reference nest: Unmarked Nest, Familiar Position

Colony	Treatment	Prop. of items in Ref. Nest	Cohesion
S_1	Exchange	1	1
S_2	Exchange	0.3	0.401
S_3	Exchange	1	1
S_5	Exchange	0	1
S_6	Exchange	1	1
S_7	Exchange	0	1
S_8	Exchange	0.793	0.587
S_9	Exchange	0.815	0.63
S_10	Exchange	1	1
S_11	Exchange	1	1
S_12	Exchange	1	1
S_13	Exchange	0	1
S_14	Exchange	0	1
S_15	Exchange	0.606	0.211
S_16	Exchange	0.76	0.52
S_17	Exchange	1	1
S_18	Exchange	0.993	0.985
S_19	Exchange	1	1
S_20	Exchange	0.585	0.17
S_21	Exchange	0.613	0.225
S_22	Exchange	1	1
S_23	Exchange	1	1
S_24	Exchange	0	1

c - Experiment 2 (autumn)

Control treatment

Reference nest: Marked Nest, Informed Colony

Colony	Treatment	Prop. of items in Ref. Nest	Cohesion
A_1	Control	0.154	0.692
A_4	Control	0	1
A_5	Control	0	1
A_6	Control	0	1
A_7	Control	0	1
A_8	Control	0	1
A_9	Control	0	1
A_10	Control	0	1
A_11	Control	1	1
A_12	Control	0	1
A_13	Control	0	1
A_14	Control	1	1
A_15	Control	0	1
A_16	Control	0	1
A_17	Control	0.638	0.277
A_18	Control	0	1
A_19	Control	0	1
A_20	Control	0	1
A_21	Control	0.265	0.47
A_22	Control	0	1
A_23	Control	0	1
A_24	Control	0	1
A_25	Control	0.779	0.558
A_26	Control	1	1
A_27	Control	0	1
A_28	Control	1	1
A_29	Control	0	1
A_30	Control	0	1
A_31	Control	1	1
A_32	Control	0	1
A_33	Control	1	1
A_34	Control	1	1
A_35	Control	0	1
A_36	Control	1	1
A_37	Control	0	1
A_38	Control	0	1
A_39	Control	0	1
A_40	Control	0	1

Transfer treatment
Reference nest: Marked Nest, Naive Colony

Colony	Treatment	Prop. of items in Ref. Nest	Cohesion
A_1	Transfer	0	1
A_4	Transfer	1	1
A_5	Transfer	0.049	0.902
A_6	Transfer	1	1
A_7	Transfer	0	1
A_8	Transfer	1	1
A_9	Transfer	0	1
A_10	Transfer	0	1
A_11	Transfer	1	1
A_12	Transfer	0	1
A_13	Transfer	1	1
A_14	Transfer	0.412	0.176
A_15	Transfer	1	1
A_16	Transfer	0	1
A_17	Transfer	1	1
A_18	Transfer	0	1
A_19	Transfer	0	1
A_20	Transfer	1	1
A_21	Transfer	0	1
A_22	Transfer	0	1
A_23	Transfer	0.295	0.41
A_24	Transfer	0	1
A_25	Transfer	0	1
A_26	Transfer	0	1
A_27	Transfer	1	1
A_28	Transfer	0	1
A_29	Transfer	0	1
A_30	Transfer	0	1
A_31	Transfer	0	1
A_32	Transfer	0	1
A_33	Transfer	0	1
A_34	Transfer	0	1
A_35	Transfer	1	1
A_36	Transfer	1	1
A_37	Transfer	0	1
A_38	Transfer	0	1
A_39	Transfer	0	1
A_40	Transfer	1	1

B - Adults only

a - Experiment 1, winter replicate

Control treatment

Reference nest: Marked Nest, Familiar Position

Colony	Treatment	Prop. of adults in Ref. Nest	Cohesion
W_1	Control	0.961	0.922
W_2	Control	0.31	0.38
W_3	Control	1	1
W_4	Control	0.911	0.821
W_5	Control	0.817	0.634
W_6	Control	1	1
W_6	Control	0	1
W_7	Control	0.764	0.527
W_8	Control	0	1
W_9	Control	1	1
W_10	Control	0.567	0.134
W_11	Control	1	1
W_13	Control	1	1
W_14	Control	1	1
W_15	Control	1	1
W_15	Control	0.277	0.446
W_16	Control	1	1
W_17	Control	1	1
W_18	Control	1	1
W_19	Control	1	1
W_21	Control	1	1
W_22	Control	0.52	0.041
W_23	Control	1	1
W_24	Control	0	1

Removal treatment
Reference nest: Unmarked Nest, Familiar Position

Colony	Treatment	Prop. of adults in Ref. Nest	Cohesion
W_1	Removal	0.895	0.789
W_1	Removal	0	1
W_2	Removal	1	1
W_3	Removal	0.564	0.129
W_4	Removal	0.192	0.617
W_5	Removal	0.406	0.189
W_7	Removal	0.324	0.352
W_8	Removal	1	1
W_9	Removal	0.952	0.903
W_9	Removal	1	1
W_10	Removal	1	1
W_11	Removal	0.643	0.286
W_12	Removal	0.531	0.062
W_13	Removal	1	1
W_14	Removal	0.762	0.523
W_16	Removal	0	1
W_17	Removal	0.489	0.023
W_18	Removal	0	1
W_19	Removal	0	1
W_20	Removal	1	1
W_21	Removal	0.784	0.567
W_22	Removal	1	1
W_23	Removal	0.41	0.181
W_24	Removal	1	1

Exchange treatment
Reference nest: Unmarked Nest, Familiar Position

Colony	Treatment	Prop. of adults in Ref. Nest	Cohesion
W_2	Exchange	0.557	0.114
W_3	Exchange	0.771	0.542
W_4	Exchange	1	1
W_5	Exchange	0.714	0.429
W_6	Exchange	1	1
W_7	Exchange	0	1
W_8	Exchange	1	1
W_10	Exchange	0	1
W_11	Exchange	1	1
W_12	Exchange	0	1
W_12	Exchange	1	1
W_13	Exchange	1	1
W_14	Exchange	0.813	0.626
W_15	Exchange	0.191	0.618
W_16	Exchange	0.347	0.307
W_17	Exchange	0	1
W_18	Exchange	0.569	0.137
W_19	Exchange	0	1
W_20	Exchange	0	1
W_21	Exchange	1	1
W_22	Exchange	0.828	0.655
W_23	Exchange	0	1
W_24	Exchange	1	1

b - Experiment 1, summer replicate

Control treatment

Reference nest: Marked Nest, Familiar Position

Colony	Treatment	Prop. of adults in Ref. Nest	Cohesion
S_1	Control	0	1
S_2	Control	0	1
S_3	Control	0	1
S_4	Control	0	1
S_5	Control	1	1
S_6	Control	0	1
S_7	Control	0	1
S_8	Control	1	1
S_9	Control	0	1
S_10	Control	1	1
S_11	Control	0	1
S_12	Control	0	1
S_13	Control	0	1
S_14	Control	0	1
S_15	Control	0	1
S_16	Control	1	1
S_17	Control	0	1
S_18	Control	0.273	0.455
S_20	Control	1	1
S_21	Control	0	1
S_22	Control	0.662	0.324
S_23	Control	0	1
S_24	Control	1	1

Removal treatment

Reference nest: Unmarked Nest, Familiar Position

Colony	Treatment	Prop. of adults in Ref. Nest	Cohesion
S_1	Removal	0.654	0.308
S_2	Removal	0.643	0.286
S_3	Removal	0.62	0.24
S_4	Removal	1	1
S_5	Removal	1	1
S_6	Removal	0	1
S_7	Removal	0.556	0.112
S_8	Removal	0	1
S_9	Removal	0.167	0.667
S_10	Removal	1	1
S_11	Removal	1	1
S_12	Removal	0.352	0.295
S_13	Removal	0.84	0.68
S_14	Removal	1	1
S_15	Removal	0.365	0.27
S_16	Removal	0.339	0.322
S_17	Removal	0.696	0.392
S_18	Removal	0.574	0.148
S_19	Removal	0.389	0.222
S_20	Removal	0.319	0.362
S_21	Removal	0.535	0.07
S_22	Removal	0.642	0.285
S_23	Removal	0.402	0.197
S_24	Removal	0.752	0.505

Exchange treatment
Reference nest: Unmarked Nest, Familiar Position

Colony	Treatment	Prop. of adults in Ref. Nest	Cohesion
S_1	Exchange	1	1
S_2	Exchange	0.259	0.483
S_3	Exchange	1	1
S_5	Exchange	0	1
S_6	Exchange	1	1
S_7	Exchange	0	1
S_8	Exchange	0.853	0.706
S_9	Exchange	0.763	0.526
S_10	Exchange	1	1
S_11	Exchange	1	1
S_12	Exchange	1	1
S_13	Exchange	0	1
S_14	Exchange	0	1
S_15	Exchange	0.679	0.358
S_16	Exchange	0.765	0.531
S_17	Exchange	1	1
S_18	Exchange	0.982	0.963
S_19	Exchange	1	1
S_20	Exchange	0.583	0.167
S_21	Exchange	0.603	0.205
S_22	Exchange	1	1
S_23	Exchange	1	1
S_24	Exchange	0	1

c - Experiment 2 (autumn)

Control treatment

Reference nest: Marked Nest, Informed Colony

Colony	Treatment	Prop. of adults in Ref. Nest	Cohesion
A_1	Control	0.123	0.753
A_4	Control	0	1
A_5	Control	0	1
A_6	Control	0	1
A_7	Control	0	1
A_8	Control	0	1
A_9	Control	0	1
A_10	Control	0	1
A_11	Control	1	1
A_12	Control	0	1
A_13	Control	0	1
A_14	Control	1	1
A_15	Control	0	1
A_16	Control	0	1
A_17	Control	0.726	0.453
A_18	Control	0	1
A_19	Control	0	1
A_20	Control	0	1
A_21	Control	0.25	0.5
A_22	Control	0	1
A_23	Control	0	1
A_24	Control	0	1
A_25	Control	0.741	0.483
A_26	Control	1	1
A_27	Control	0	1
A_28	Control	1	1
A_29	Control	0	1
A_30	Control	0	1
A_31	Control	1	1
A_32	Control	0	1
A_33	Control	1	1
A_34	Control	1	1
A_35	Control	0	1
A_36	Control	1	1
A_37	Control	0	1
A_38	Control	0	1
A_39	Control	0	1
A_40	Control	0	1

Transfer treatment
Reference nest: Marked Nest, Naive Colony

Colony	Treatment	Prop. of adults in Ref. Nest	Cohesion
A_1	Transfer	0	1
A_4	Transfer	1	1
A_5	Transfer	0.06	0.881
A_6	Transfer	1	1
A_7	Transfer	0	1
A_8	Transfer	1	1
A_9	Transfer	0	1
A_10	Transfer	0	1
A_11	Transfer	1	1
A_12	Transfer	0	1
A_13	Transfer	1	1
A_14	Transfer	0.433	0.133
A_15	Transfer	1	1
A_16	Transfer	0	1
A_17	Transfer	1	1
A_18	Transfer	0	1
A_19	Transfer	0	1
A_20	Transfer	1	1
A_21	Transfer	0	1
A_22	Transfer	0	1
A_23	Transfer	0.286	0.429
A_24	Transfer	0	1
A_25	Transfer	0	1
A_26	Transfer	0	1
A_27	Transfer	1	1
A_28	Transfer	0	1
A_29	Transfer	0	1
A_30	Transfer	0	1
A_31	Transfer	0	1
A_32	Transfer	0	1
A_33	Transfer	0	1
A_34	Transfer	0	1
A_35	Transfer	1	1
A_36	Transfer	1	1
A_37	Transfer	0	1
A_38	Transfer	0	1
A_39	Transfer	0	1
A_40	Transfer	1	1

C - Brood only

a - Experiment 1, winter replicate

Control treatment

Reference nest: Marked Nest, Familiar Position

Colony	Treatment	Prop. of brood in Ref. Nest	Cohesion
W_1	Control	0.857	0.714
W_2	Control	0.31	0.38
W_3	Control	1	1
W_4	Control	0.94	0.879
W_5	Control	0.744	0.487
W_6	Control	1	1
W_6	Control	0	1
W_7	Control	0.8	0.6
W_8	Control	0	1
W_9	Control	1	1
W_10	Control	0.75	0.5
W_11	Control	1	1
W_13	Control	1	1
W_14	Control	1	1
W_15	Control	1	1
W_15	Control	0.402	0.196
W_16	Control	1	1
W_17	Control	1	1
W_18	Control	1	1
W_19	Control	1	1
W_21	Control	1	1
W_22	Control	0.594	0.188
W_23	Control	1	1
W_24	Control	0	1

Removal treatment
Reference nest: Unmarked Nest, Familiar Position

Colony	Treatment	Prop. of brood in Ref. Nest	Cohesion
W_1	Removal	0.852	0.703
W_1	Removal	0	1
W_2	Removal	1	1
W_3	Removal	0.705	0.411
W_4	Removal	0.266	0.469
W_5	Removal	0.486	0.028
W_7	Removal	0.165	0.669
W_8	Removal	1	1
W_9	Removal	0.983	0.965
W_9	Removal	1	1
W_10	Removal	1	1
W_11	Removal	0.576	0.153
W_12	Removal	0.391	0.218
W_13	Removal	1	1
W_14	Removal	0.874	0.749
W_16	Removal	0	1
W_17	Removal	0.6	0.2
W_18	Removal	0	1
W_19	Removal	0	1
W_20	Removal	1	1
W_21	Removal	0.636	0.272
W_22	Removal	1	1
W_23	Removal	0.455	0.089
W_24	Removal	1	1

Exchange treatment
Reference nest: Unmarked Nest, Familiar Position

Colony	Treatment	Prop. of brood in Ref. Nest	Cohesion
W_2	Exchange	0.602	0.204
W_3	Exchange	0.846	0.692
W_4	Exchange	1	1
W_5	Exchange	0.64	0.281
W_6	Exchange	1	1
W_7	Exchange	0	1
W_8	Exchange	1	1
W_10	Exchange	0	1
W_11	Exchange	1	1
W_12	Exchange	0	1
W_12	Exchange	1	1
W_13	Exchange	1	1
W_14	Exchange	0.756	0.511
W_15	Exchange	0.069	0.862
W_16	Exchange	0.335	0.329
W_17	Exchange	0	1
W_18	Exchange	0.578	0.157
W_19	Exchange	0	1
W_20	Exchange	0	1
W_21	Exchange	1	1
W_22	Exchange	0.625	0.25
W_23	Exchange	0	1
W_24	Exchange	1	1

b - Experiment 1, summer replicate

Control treatment

Reference nest: Marked Nest, Familiar Position

Colony	Treatment	Prop. of brood in Ref. Nest	Cohesion
S_1	Control	0	1
S_2	Control	0	1
S_3	Control	0	1
S_4	Control	0	1
S_5	Control	1	1
S_6	Control	0	1
S_7	Control	0	1
S_8	Control	1	1
S_9	Control	0	1
S_10	Control	1	1
S_11	Control	0	1
S_12	Control	0	1
S_13	Control	0	1
S_14	Control	0	1
S_15	Control	0	1
S_16	Control	1	1
S_17	Control	0	1
S_18	Control	0.296	0.408
S_20	Control	1	1
S_21	Control	0	1
S_22	Control	0.83	0.659
S_23	Control	0	1
S_24	Control	1	1

Removal treatment

Reference nest: Unmarked Nest, Familiar Position

Colony	Treatment	Prop. of brood in Ref. Nest	Cohesion
S_1	Removal	0.861	0.722
S_2	Removal	0.442	0.115
S_3	Removal	0.735	0.471
S_4	Removal	1	1
S_5	Removal	1	1
S_6	Removal	0	1
S_7	Removal	0.674	0.349
S_8	Removal	0	1
S_9	Removal	0.25	0.5
S_10	Removal	1	1
S_11	Removal	1	1
S_12	Removal	0.222	0.556
S_13	Removal	0.828	0.655
S_14	Removal	1	1
S_15	Removal	0.781	0.562
S_16	Removal	0.397	0.207
S_17	Removal	0.478	0.045
S_18	Removal	0.739	0.479
S_19	Removal	0.581	0.161
S_20	Removal	0.496	0.008
S_21	Removal	0.423	0.154
S_22	Removal	0.765	0.529
S_23	Removal	0.383	0.235
S_24	Removal	0.569	0.138

Exchange treatment
Reference nest: Unmarked Nest, Familiar Position

Colony	Treatment	Prop. of brood in Ref. Nest	Cohesion
S_1	Exchange	1	1
S_2	Exchange	0.465	0.07
S_3	Exchange	1	1
S_5	Exchange	0	1
S_6	Exchange	1	1
S_7	Exchange	0	1
S_8	Exchange	0.731	0.462
S_9	Exchange	0.907	0.814
S_10	Exchange	1	1
S_11	Exchange	1	1
S_12	Exchange	1	1
S_13	Exchange	0	1
S_14	Exchange	0	1
S_15	Exchange	0.493	0.014
S_16	Exchange	0.756	0.512
S_17	Exchange	1	1
S_18	Exchange	0.997	0.993
S_19	Exchange	1	1
S_20	Exchange	0.587	0.174
S_21	Exchange	0.627	0.255
S_22	Exchange	1	1
S_23	Exchange	1	1
S_24	Exchange	0	1

c - Experiment 2 (autumn)

Control treatment

Reference nest: Marked Nest, Informed Colony

Colony	Treatment	Prop. of brood in Ref. Nest	Cohesion
A_1	Control	0.194	0.613
A_4	Control	0	1
A_5	Control	0	1
A_6	Control	0	1
A_7	Control	0	1
A_8	Control	0	1
A_9	Control	0	1
A_10	Control	0	1
A_11	Control	1	1
A_12	Control	0	1
A_13	Control	0	1
A_14	Control	1	1
A_15	Control	0	1
A_16	Control	0	1
A_17	Control	0.4	0.2
A_18	Control	0	1
A_19	Control	0	1
A_20	Control	0	1
A_21	Control	0.32	0.36
A_22	Control	0	1
A_23	Control	0	1
A_24	Control	0	1
A_25	Control	0.838	0.676
A_26	Control	1	1
A_27	Control	0	1
A_28	Control	1	1
A_29	Control	0	1
A_30	Control	0	1
A_31	Control	1	1
A_32	Control	0	1
A_33	Control	1	1
A_34	Control	1	1
A_35	Control	0	1
A_36	Control	1	1
A_37	Control	0	1
A_38	Control	0	1
A_39	Control	0	1
A_40	Control	0	1

Transfer treatment
Reference nest: Marked Nest, Naive Colony

Colony	Treatment	Prop. of brood in Ref. Nest	Cohesion
A_1	Transfer	0	1
A_4	Transfer	1	1
A_5	Transfer	0.026	0.949
A_6	Transfer	1	1
A_7	Transfer	0	1
A_8	Transfer	1	1
A_9	Transfer	0	1
A_10	Transfer	0	1
A_11	Transfer	1	1
A_12	Transfer	0	1
A_13	Transfer	1	1
A_14	Transfer	0.381	0.238
A_15	Transfer	1	1
A_16	Transfer	0	1
A_17	Transfer	1	1
A_18	Transfer	0	1
A_19	Transfer	0	1
A_20	Transfer	1	1
A_21	Transfer	0	1
A_22	Transfer	0	1
A_23	Transfer	0.318	0.364
A_24	Transfer	0	1
A_25	Transfer	0	1
A_26	Transfer	0	1
A_27	Transfer	1	1
A_28	Transfer	0	1
A_29	Transfer	0	1
A_30	Transfer	0	1
A_31	Transfer	0	1
A_32	Transfer	0	1
A_33	Transfer	0	1
A_34	Transfer	0	1
A_35	Transfer	1	1
A_36	Transfer	1	1
A_37	Transfer	0	1
A_38	Transfer	0	1
A_39	Transfer	0	1
A_40	Transfer	1	1

III - Nest Discovery Times

a - Experiment 1, summer replicate

Colony	Treatment	Nest	Discovery time (min)
S_1	Control	Marked Nest, Familiar Position	29.13
S_1	Control	Unmarked Nest, Unfamiliar Position	23.5
S_2	Control	Marked Nest, Familiar Position	9.37
S_2	Control	Unmarked Nest, Unfamiliar Position	3.33
S_6	Control	Marked Nest, Familiar Position	8.38
S_6	Control	Unmarked Nest, Unfamiliar Position	10.6
S_8	Control	Marked Nest, Familiar Position	6.42
S_8	Control	Unmarked Nest, Unfamiliar Position	32.5
S_9	Control	Marked Nest, Familiar Position	2.58
S_9	Control	Unmarked Nest, Unfamiliar Position	4.45
S_15	Control	Marked Nest, Familiar Position	7.22
S_15	Control	Unmarked Nest, Unfamiliar Position	9.63
S_23	Control	Marked Nest, Familiar Position	3.1
S_23	Control	Unmarked Nest, Unfamiliar Position	4.8
S_1	Exchange	Marked Nest, Unfamiliar Position	14.58
S_1	Exchange	Unmarked Nest, Familiar Position	7.63
S_6	Exchange	Marked Nest, Unfamiliar Position	11.27
S_6	Exchange	Unmarked Nest, Familiar Position	10.35
S_12	Exchange	Marked Nest, Unfamiliar Position	12.67
S_12	Exchange	Unmarked Nest, Familiar Position	7.63
S_15	Exchange	Marked Nest, Unfamiliar Position	NA
S_15	Exchange	Unmarked Nest, Familiar Position	9.67
S_22	Exchange	Marked Nest, Unfamiliar Position	7.83
S_22	Exchange	Unmarked Nest, Familiar Position	8.67
S_23	Exchange	Marked Nest, Unfamiliar Position	1.97
S_23	Exchange	Unmarked Nest, Familiar Position	5.7

b - Experiment 2 (autumn)

Colony	Treatment	Nest	Discovery time (min)
A_1	Control	Marked Nest, Informed Colony	10.05
A_1	Control	Unmarked Nest, Informed Colony	11.83
A_2	Control	Marked Nest, Informed Colony	10.35
A_2	Control	Unmarked Nest, Informed Colony	7.33
A_3	Control	Marked Nest, Informed Colony	13.13
A_3	Control	Unmarked Nest, Informed Colony	10.13
A_5	Control	Marked Nest, Informed Colony	6.78
A_5	Control	Unmarked Nest, Informed Colony	3.65
A_6	Control	Marked Nest, Informed Colony	10.68
A_6	Control	Unmarked Nest, Informed Colony	7.95
A_13	Control	Marked Nest, Informed Colony	10.63
A_13	Control	Unmarked Nest, Informed Colony	7.57
A_14	Control	Marked Nest, Informed Colony	3.95
A_14	Control	Unmarked Nest, Informed Colony	7.07
A_15	Control	Marked Nest, Informed Colony	3
A_15	Control	Unmarked Nest, Informed Colony	1.92
A_17	Control	Marked Nest, Informed Colony	4.52
A_17	Control	Unmarked Nest, Informed Colony	8.53
A_18	Control	Marked Nest, Informed Colony	7.48
A_18	Control	Unmarked Nest, Informed Colony	23.52
A_25	Control	Marked Nest, Informed Colony	4.02
A_25	Control	Unmarked Nest, Informed Colony	5.47
A_26	Control	Marked Nest, Informed Colony	3.32
A_26	Control	Unmarked Nest, Informed Colony	14.62
A_27	Control	Marked Nest, Informed Colony	16.9
A_27	Control	Unmarked Nest, Informed Colony	8.42
A_28	Control	Marked Nest, Informed Colony	20.43
A_28	Control	Unmarked Nest, Informed Colony	1.93
A_33	Control	Marked Nest, Informed Colony	7.52
A_33	Control	Unmarked Nest, Informed Colony	1.57
A_34	Control	Marked Nest, Informed Colony	5.82
A_34	Control	Unmarked Nest, Informed Colony	4.93
A_35	Control	Marked Nest, Informed Colony	1.27
A_35	Control	Unmarked Nest, Informed Colony	17.7
A_36	Control	Marked Nest, Informed Colony	10.83
A_36	Control	Unmarked Nest, Informed Colony	10.82
A_4	Transfer	Marked Nest, Naive Colony	8.02
A_4	Transfer	Unmarked Nest, Naive Colony	10.27
A_5	Transfer	Marked Nest, Naive Colony	0.82
A_5	Transfer	Unmarked Nest, Naive Colony	4.42
A_14	Transfer	Marked Nest, Naive Colony	8.03
A_14	Transfer	Unmarked Nest, Naive Colony	9.35
A_16	Transfer	Marked Nest, Naive Colony	7.98
A_16	Transfer	Unmarked Nest, Naive Colony	7.37
A_17	Transfer	Marked Nest, Naive Colony	5.48
A_17	Transfer	Unmarked Nest, Naive Colony	7.32
A_25	Transfer	Marked Nest, Naive Colony	7.2
A_25	Transfer	Unmarked Nest, Naive Colony	6.27
A_28	Transfer	Marked Nest, Naive Colony	8.35
A_28	Transfer	Unmarked Nest, Naive Colony	12.22
A_33	Transfer	Marked Nest, Naive Colony	2.4
A_33	Transfer	Unmarked Nest, Naive Colony	8.22
A_34	Transfer	Marked Nest, Naive Colony	9.17
A_34	Transfer	Unmarked Nest, Naive Colony	1.87

IV - Population increase in candidate nests over time

Experiment 2 (autumn)

Treatment	Nest	Time after onset of emigration (min)	Median no. of ants in nest
Control	Marked Nest, Informed Colony	0	0
Control	Marked Nest, Informed Colony	5	0
Control	Marked Nest, Informed Colony	10	1
Control	Marked Nest, Informed Colony	15	1
Control	Marked Nest, Informed Colony	20	2
Control	Marked Nest, Informed Colony	25	2
Control	Marked Nest, Informed Colony	30	2
Control	Marked Nest, Informed Colony	35	2
Control	Marked Nest, Informed Colony	40	3
Control	Marked Nest, Informed Colony	45	2.5
Control	Marked Nest, Informed Colony	50	3
Control	Marked Nest, Informed Colony	55	3
Control	Marked Nest, Informed Colony	60	3
Control	Unmarked Nest, Informed Colony	0	0
Control	Unmarked Nest, Informed Colony	5	0
Control	Unmarked Nest, Informed Colony	10	1
Control	Unmarked Nest, Informed Colony	15	2
Control	Unmarked Nest, Informed Colony	20	3.5
Control	Unmarked Nest, Informed Colony	25	4.5
Control	Unmarked Nest, Informed Colony	30	5
Control	Unmarked Nest, Informed Colony	35	6
Control	Unmarked Nest, Informed Colony	40	5
Control	Unmarked Nest, Informed Colony	45	5
Control	Unmarked Nest, Informed Colony	50	7
Control	Unmarked Nest, Informed Colony	55	9
Control	Unmarked Nest, Informed Colony	60	14
Transfer	Marked Nest, Naive Colony	0	0
Transfer	Marked Nest, Naive Colony	5	0
Transfer	Marked Nest, Naive Colony	10	0.5
Transfer	Marked Nest, Naive Colony	15	1
Transfer	Marked Nest, Naive Colony	20	2
Transfer	Marked Nest, Naive Colony	25	2
Transfer	Marked Nest, Naive Colony	30	2
Transfer	Marked Nest, Naive Colony	35	3
Transfer	Marked Nest, Naive Colony	40	3
Transfer	Marked Nest, Naive Colony	45	3
Transfer	Marked Nest, Naive Colony	50	3
Transfer	Marked Nest, Naive Colony	55	3.5
Transfer	Marked Nest, Naive Colony	60	3.5
Transfer	Unmarked Nest, Naive Colony	0	0
Transfer	Unmarked Nest, Naive Colony	5	0
Transfer	Unmarked Nest, Naive Colony	10	1
Transfer	Unmarked Nest, Naive Colony	15	2
Transfer	Unmarked Nest, Naive Colony	20	3
Transfer	Unmarked Nest, Naive Colony	25	3
Transfer	Unmarked Nest, Naive Colony	30	4
Transfer	Unmarked Nest, Naive Colony	35	5
Transfer	Unmarked Nest, Naive Colony	40	6.5
Transfer	Unmarked Nest, Naive Colony	45	7
Transfer	Unmarked Nest, Naive Colony	50	7
Transfer	Unmarked Nest, Naive Colony	55	8.5
Transfer	Unmarked Nest, Naive Colony	60	10.5