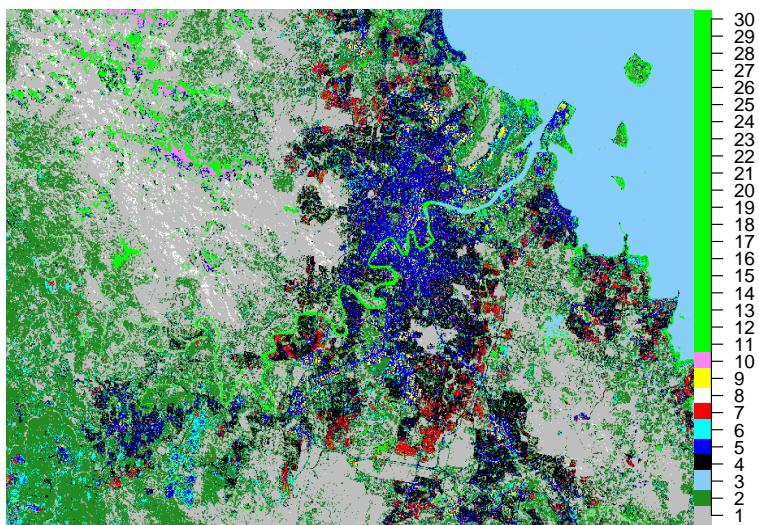


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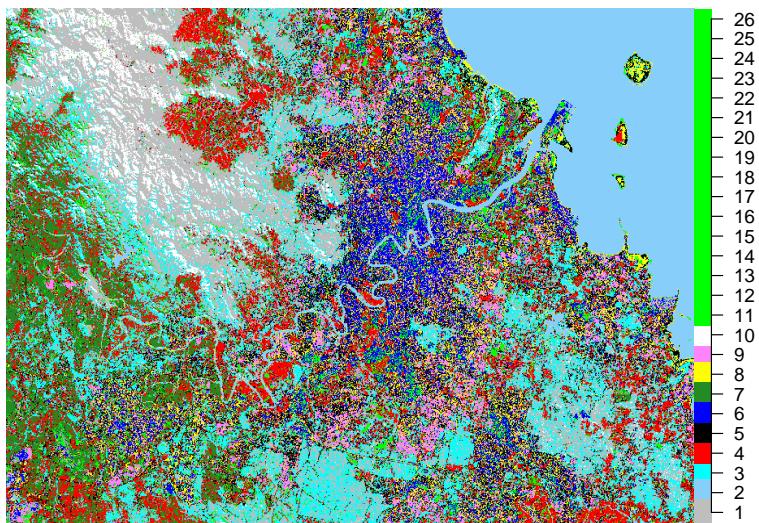
**Additional Figures and Tables**

**Table S1** The percentages of fire ant colonies identified in each of the 20 spatial components over the period of 13 years. The 20 components (based on the classification of 2002 image shown in Figure S1). C.No indicate component numbers C.Size (in %) is the size of a cluster relative to image.

C.No	C.Size	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1	34.0	4.7	6.1	9.0	10.8	14.0	21.6	4.4	4.4	9.3	7.2	57.9	27.0	27.4
2	22.7	24.0	20.5	29.6	31.0	26.4	39.2	57.7	54.4	50.4	79.8	24.1	46.1	48.1
3	12.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	10.7	18.8	15.3	16.3	9.5	21.5	12.6	7.2	8.4	7.5	2.2	4.2	6.4	4.9
5	5.7	15.6	13.1	9.5	8.5	6.6	6.4	16.6	6.1	3.1	0.5	1.5	3.3	4.0
6	4.1	15.4	21.9	15.0	33.2	14.9	10.9	6.2	19.0	18.0	3.9	5.5	10.5	10.8
7	3.2	13.5	17.4	14.6	4.4	12.4	7.3	6.2	5.8	8.5	2.0	4.9	4.2	2.6
8	1.2	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0
9	0.9	4.0	2.2	1.0	1.3	0.0	0.3	0.2	0.0	0.2	0.0	0.1	0.4	0.6
10	0.8	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.3	0.0
11	0.7	0.2	0.1	0.1	0.0	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.2	0.2
12	0.6	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.2	0.0	0.0	0.0	0.0
14	0.4	0.0	0.1	0.0	1.3	1.7	1.1	0.0	1.9	2.5	0.0	0.0	1.6	1.3
15	0.4	3.0	2.9	4.2	0.0	0.0	0.0	0.0	0.0	0.0	4.2	1.4	0.0	0.1
16	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.2	0.2	0.0	0.2	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.1
18	0.2	0.4	0.3	0.0	0.0	1.7	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
19	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
20	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total incursions		1788	690	923	316	121	361	502	856	613	4220	2436	1075	1206



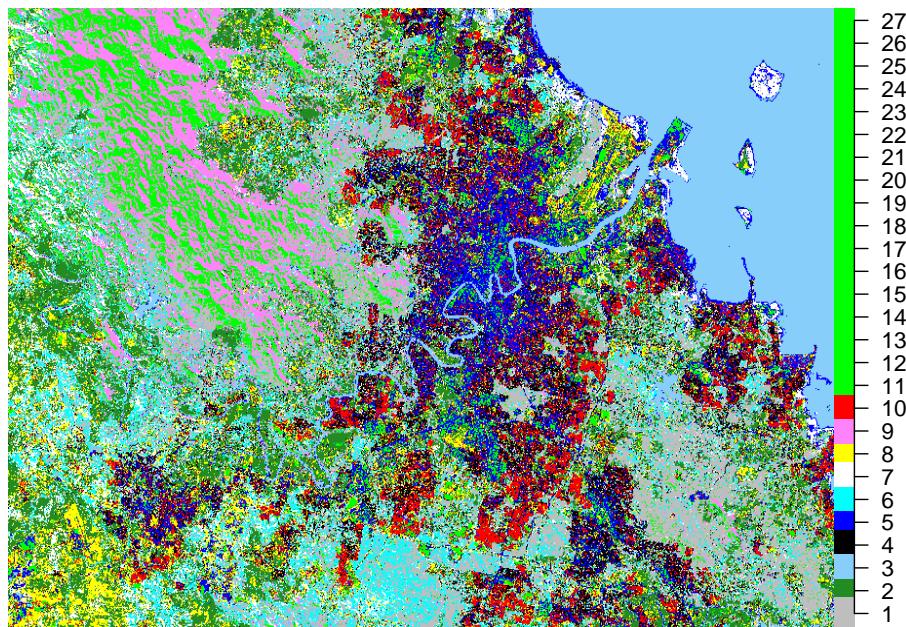
**Fig. S1** Cluster analysis of the satellite image of Brisbane area taken in May 2001. For clarity, the smaller clusters are merged into a single cluster (shown in bright green).



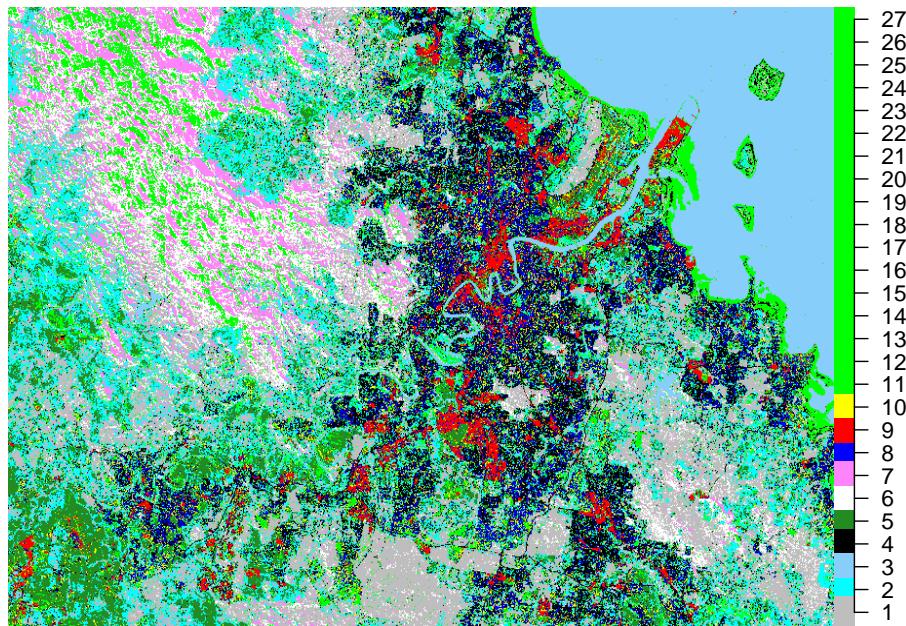
**Fig. S2** Cluster analysis of the satellite image of Brisbane area taken in May 2002. For clarity, the smaller clusters are merged into a single cluster (shown in bright green).

**Table S2** The percentages of fire ant colonies identified in each of the 20 spatial components over the period of 13 years. The 20 components (based on the classification of 2002 image shown in Figure S2). C.No indicate component numbers C.Size (in %) is the size of a cluster relative to image.

C.No	C.Size	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1	16.3	1.1	1.2	1.8	1.6	2.5	2.2	0.6	2.0	3.9	3.3	3.5	6.8	8.5
2	13.5	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
3	13.3	3.1	2.0	2.8	2.2	6.6	4.5	2.6	1.1	3.4	6.3	20.3	16.9	14.1
4	12.8	9.3	10.0	19.7	16.8	14.9	32.8	14.6	17.5	19.8	50.1	31.3	18.4	26.0
5	9.7	19.6	16.4	15.9	10.8	11.6	14.6	7.4	7.6	9.7	5.1	17.5	12.2	13.0
6	7.0	18.6	13.4	11.8	7.9	8.3	12.0	13.8	12.4	4.1	0.7	1.8	3.6	3.6
7	6.2	0.9	1.9	3.0	19.6	3.3	9.5	34.5	27.8	25.0	22.7	5.8	16.7	12.5
8	6.0	8.3	9.0	9.0	4.4	3.3	5.9	4.0	6.3	3.1	1.4	6.5	4.0	3.9
9	5.5	22.0	31.8	24.3	11.7	24.8	7.6	13.0	13.9	11.5	3.4	5.6	8.5	6.2
10	3.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
11	2.2	6.6	6.5	5.4	20.3	9.9	6.4	2.8	9.0	13.6	1.8	3.1	6.1	5.8
12	1.9	0.8	0.3	0.3	0.3	0.8	1.7	0.4	0.5	0.8	0.8	1.3	2.4	2.5
13	0.9	4.8	5.5	1.7	0.9	0.8	0.0	2.2	0.4	0.5	0.1	0.4	0.2	1.1
14	0.4	2.9	1.2	2.4	1.9	7.4	0.8	3.0	1.1	1.6	2.5	1.8	0.2	1.2
15	0.2	1.6	0.3	0.5	0.0	1.7	0.0	0.0	0.0	0.2	0.6	0.5	0.0	0.3
16	0.2	0.3	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5
17	0.1	0.0	0.1	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.2
18	0.1	0.0	0.0	0.5	1.6	4.1	0.8	1.2	0.0	1.3	0.1	0.7	3.5	0.3
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.5	1.1	0.0	0.0	0.2
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total incursions		1788	690	923	316	121	361	502	856	613	4220	2436	1075	1206



**Fig. S3** Cluster analysis of the satellite image of Brisbane area taken in May 2003. For clarity, the smaller clusters are merged into a single cluster (shown in bright green).



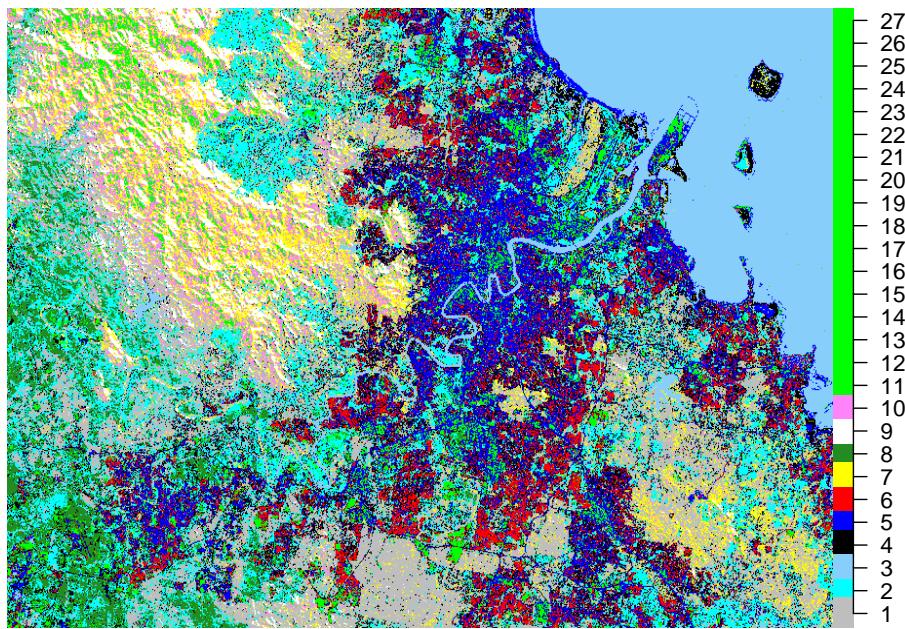
**Fig. S4** Cluster analysis of the satellite image of Brisbane area taken in May 2004. For clarity, the smaller clusters are merged into a single cluster (shown in bright green).

**Table S3** The percentages of fire ant colonies identified in each of the 20 spatial components over the period of 13 years. The 20 components (based on the classification of 2003 image shown in Figure S3). C.No indicate component numbers C.Size (in %) is the size of a cluster relative to image.

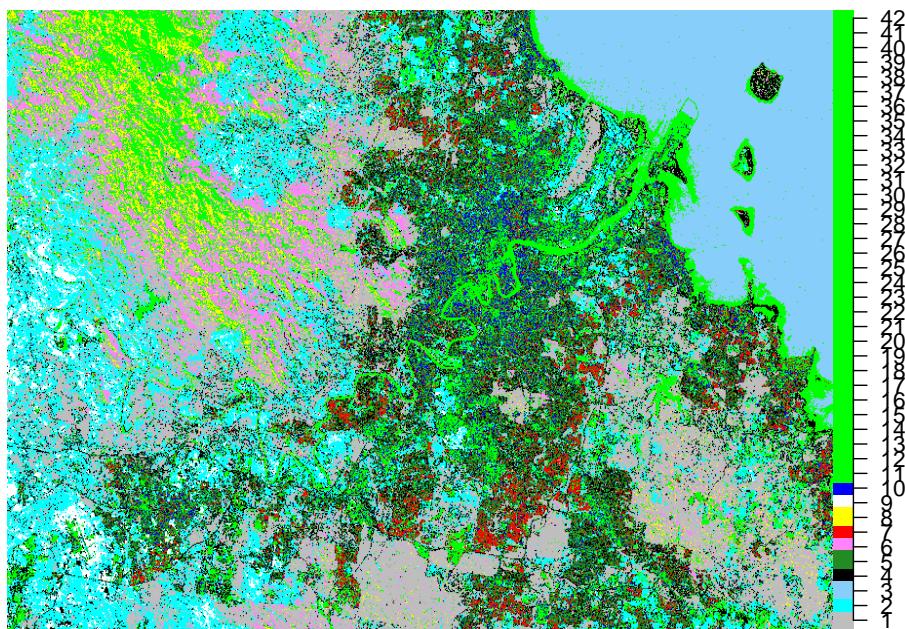
C.No	C.Size	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1	14.2	1.2	2.6	2.2	0.6	1.7	2.8	0.8	0.8	4.4	2.5	5.1	6.8	7.7
2	13.6	4.9	7.8	16.1	24.4	14.0	14.3	36.5	32.4	39.3	14.0	12.9	27.5	31.2
3	13.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
4	8.7	15.9	13.7	15.3	9.5	8.3	14.6	4.8	7.0	3.3	2.0	5.2	6.6	5.0
5	8.0	20.9	17.4	12.7	10.4	10.7	13.7	3.8	14.0	4.7	1.3	29.4	3.2	5.8
6	7.8	2.6	1.3	2.0	4.7	1.7	2.0	1.6	1.7	1.5	2.3	3.5	13.8	10.4
7	7.1	5.3	3.6	6.0	14.9	8.3	8.7	7.0	4.8	3.6	5.3	5.4	12.7	11.6
8	6.8	16.6	17.3	18.3	24.7	16.5	23.2	17.2	27.6	20.3	64.9	27.6	19.2	18.6
9	6.5	0.1	0.1	0.4	0.0	0.0	0.3	0.0	0.5	0.0	0.1	0.1	0.7	0.7
10	6.1	21.9	23.1	21.1	6.6	30.6	12.6	7.2	7.1	16.7	4.1	2.9	4.2	4.7
11	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.3
12	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	1.2	6.4	9.7	2.0	1.6	1.7	0.3	15.2	0.5	0.8	0.0	0.7	0.4	1.0
14	0.8	1.7	2.8	3.0	2.2	5.8	7.6	5.0	2.4	3.1	1.2	6.3	4.2	2.7
15	0.7	0.8	0.1	0.3	0.3	0.0	0.0	1.0	0.2	0.0	0.2	0.1	0.3	0.2
16	0.1	1.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
17	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.1	0.0	0.0	0.1
18	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.3	0.0
19	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.5	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.5	1.4	0.0	0.0	0.0
21	0.0	0.1	0.1	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total incursions		1788	690	923	316	121	361	502	856	613	4220	2436	1075	1206

**Table S4** The percentages of fire ant colonies identified in each of the 20 spatial components over the period of 13 years. The 20 components (based on the classification of 2004 image shown in Figure S4). C.No indicate component numbers C.Size (in %) is the size of a cluster relative to image.

C.No	C.Size	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1	18.4	4.3	4.4	5.0	3.2	3.3	4.5	3.0	2.4	6.4	6.0	9.7	19.5	18.1
2	14.6	12.3	12.8	19.2	13.9	15.7	19.0	3.8	7.2	12.9	12.0	9.5	16.0	21.0
3	12.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	11.2	22.5	18.0	19.4	11.4	19.0	19.3	9.0	10.3	6.5	3.0	7.9	8.4	9.4
5	8.1	0.1	11.6	17.0	44.0	8.3	12.0	16.4	33.8	0.0	0.2	0.4	1.9	1.2
6	8.1	11.4	0.4	0.4	0.9	0.0	0.0	0.0	0.0	41.4	66.2	24.1	26.4	23.0
7	5.7	0.0	0.0	0.5	0.0	0.8	0.0	0.2	0.0	0.2	0.1	0.2	0.5	1.2
8	5.2	15.4	11.3	10.9	4.7	8.3	6.4	5.6	6.3	3.3	2.0	2.1	2.3	2.9
9	3.0	15.6	15.6	5.7	5.1	6.6	12.0	26.5	8.1	4.4	1.2	3.0	2.9	10.6
10	2.8	10.3	12.6	11.2	10.1	25.6	11.2	14.4	17.2	8.2	2.7	25.1	5.6	3.4
11	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	2.1	0.4	1.5	0.4	1.3	1.7	2.5	0.2	0.5	2.6	0.7	1.5	2.0	2.1
13	1.8	2.1	1.6	2.8	2.2	5.0	3.6	1.6	0.6	3.3	0.4	1.3	1.4	1.6
14	1.5	0.2	0.0	0.4	0.0	0.0	0.0	0.8	0.7	0.2	0.3	0.0	0.1	0.2
15	1.2	4.5	6.7	5.4	2.8	1.7	8.4	17.8	11.8	5.9	3.3	13.9	10.8	2.7
16	0.9	0.4	1.9	0.3	0.3	2.5	0.6	0.2	1.0	2.0	0.3	0.7	2.2	1.7
17	0.3	0.4	1.6	0.4	0.0	0.8	0.3	0.6	0.1	2.8	1.0	0.5	0.1	0.5
18	0.1	0.2	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.1	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.5
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total incursions		1788	690	923	316	121	361	502	856	613	4220	2436	1075	1206



**Fig. S5** Cluster analysis of the satellite image of Brisbane area taken in May 2005. For clarity, the smaller clusters are merged into a single cluster (shown in bright green).



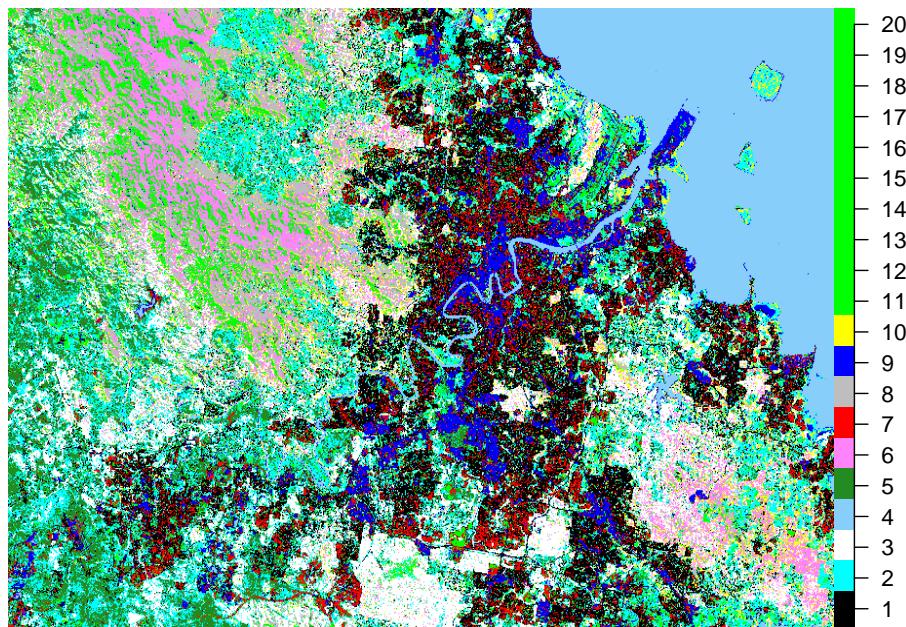
**Fig. S6** Cluster analysis of the satellite image of Brisbane area taken in May 2006. For clarity, the smaller clusters are merged into a single cluster (shown in bright green).

**Table S5** The percentages of fire ant colonies identified in each of the 20 spatial components over the period of 13 years. The 20 components (based on the classification of 2005 image shown in Figure S6). C.No indicate component numbers C.Size (in %) is the size of a cluster relative to image.

C.No	C.Size	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1	17.4	5.7	4.7	5.2	7.9	4.1	3.4	0.4	2.0	4.3	5.2	8.2	19.0	13.3
2	14.9	14.4	14.8	18.2	40.8	37.2	26.6	9.6	12.0	15.2	18.9	11.9	21.5	32.0
3	13.5	0.1	0.0	0.4	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.1
4	11.6	21.7	16.4	21.8	13.6	13.2	19.0	10.6	24.1	17.3	8.3	51.7	14.9	16.2
5	10.2	24.5	25.7	18.7	13.0	11.6	21.3	17.2	19.8	7.2	2.1	5.3	5.9	6.7
6	6.8	21.9	22.4	21.8	8.5	24.8	17.1	14.2	10.3	12.6	3.8	3.5	6.0	4.4
7	6.6	0.1	0.3	1.2	0.0	0.8	0.0	0.0	0.0	0.3	0.2	0.6	1.3	0.6
8	4.5	0.4	1.3	2.5	9.5	0.0	0.6	3.6	6.3	28.6	56.2	7.7	11.9	11.6
9	4.3	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.7	
10	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.1	0.3	0.2
11	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	1.1	1.9	2.0	3.1	0.9	1.7	7.6	6.2	5.2	7.5	0.7	3.8	9.0	3.8
13	0.9	0.1	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.0	0.1	0.2	0.2	0.1
14	0.8	4.5	6.8	1.7	0.9	1.7	1.1	0.8	0.5	0.0	0.1	0.0	0.4	1.0
15	0.8	1.3	2.5	2.1	0.6	3.3	2.5	35.9	18.6	3.4	1.9	6.7	9.1	7.7
16	0.5	1.7	2.3	0.9	1.6	0.0	0.3	1.0	0.1	0.3	0.0	0.0	0.0	0.3
17	0.3	0.9	0.1	1.2	0.9	0.0	0.3	0.0	0.1	1.8	0.9	0.0	0.1	0.9
18	0.1	0.3	0.3	0.3	0.0	0.0	0.6	0.6	0.7	0.5	0.1	0.4	0.0	
19	0.1	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
20	0.1	0.4	0.1	0.2	0.3	1.7	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.1	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total incursions		1788	690	923	316	121	361	502	856	613	4220	2436	1075	1206

**Table S6** The percentages of fire ant colonies identified in each of the 20 spatial components over the period of 13 years. The 20 components (based on the classification of 2006 image shown in Figure S6). C.No indicate component numbers C.Size (in %) is the size of a cluster relative to image.

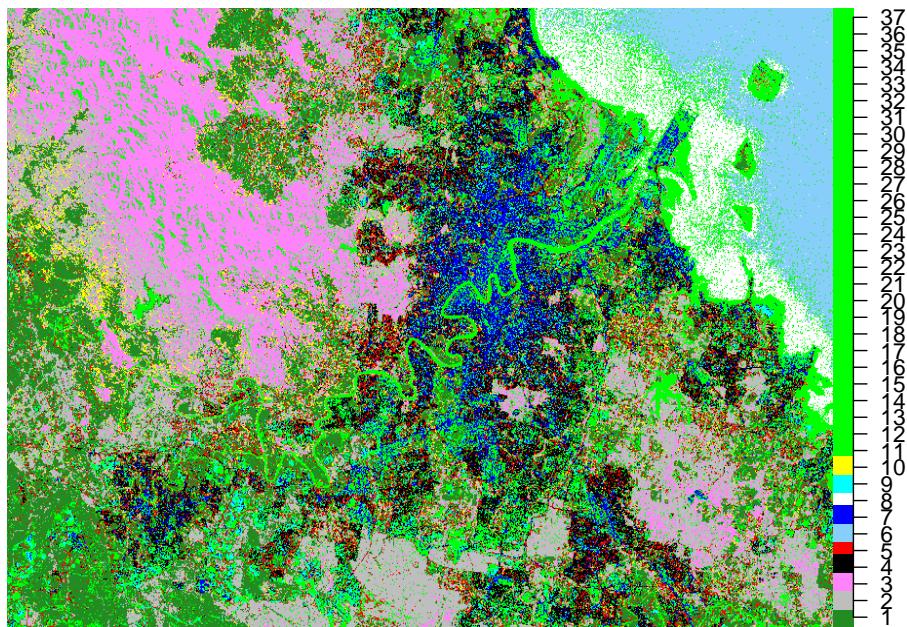
C.No	C.Size	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1	21.2	5.6	5.8	6.2	7.3	9.9	4.2	0.4	0.7	2.5	5.7	9.5	16.1	14.0
2	16.8	12.1	13.8	20.2	23.7	24.0	23.0	17.4	19.2	22.1	49.2	12.9	34.6	36.4
3	10.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	10.6	21.0	20.1	22.2	12.7	24.0	15.4	25.3	21.9	15.9	6.9	9.0	13.3	15.6
5	9.1	21.6	19.8	18.4	9.5	9.9	15.7	4.0	7.6	6.5	2.1	3.1	6.5	5.6
6	5.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.7	0.1	0.4	0.8	1.4
7	3.2	9.7	10.5	12.7	4.7	1.7	8.7	2.6	2.9	6.4	2.8	2.0	2.0	1.5
8	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
9	2.5	0.2	1.7	0.7	28.2	2.5	1.7	21.2	8.2	26.8	27.7	53.3	9.4	10.0
10	2.4	8.6	6.8	3.1	3.2	1.7	1.7	1.4	0.5	3.9	0.2	0.2	0.5	1.2
11	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
12	1.8	5.6	5.8	3.6	3.2	2.5	1.4	7.6	15.7	3.3	0.4	1.7	2.8	2.1
13	1.8	0.2	0.4	1.5	0.3	3.3	3.9	0.0	0.2	0.7	0.6	0.9	1.7	1.5
14	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.2	0.2
15	1.5	6.3	6.1	4.4	2.2	3.3	5.3	12.0	10.8	2.9	1.1	2.5	5.0	5.9
16	1.1	1.1	1.2	0.8	0.0	8.3	9.8	2.2	1.1	0.3	0.3	1.2	1.9	1.2
17	0.8	4.0	5.5	2.8	2.5	1.7	0.8	0.0	0.5	0.7	0.0	0.0	0.2	0.5
18	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.4	1.3	0.4	0.8	2.5	6.6	2.2	5.4	10.5	4.3	1.6	2.3	4.0	2.8
22	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.3	0.1	0.0	0.0	0.0	0.0	0.3	0.0	0.2	0.0	0.0	0.0	0.0	0.0
24	0.3	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.2	0.1
25	0.2	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.2	0.9	0.6	0.7	0.0	0.8	0.6	0.0	0.0	1.5	0.7	0.1	0.0	0.0
27	0.2	1.1	0.3	1.1	0.0	0.0	0.3	0.0	0.0	0.2	0.0	0.0	0.0	0.0
28	0.2	0.0	0.1	0.0	0.0	0.0	5.0	0.6	0.0	0.2	0.0	0.7	0.8	0.0
29	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5	0.0	0.0	0.0
32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total incursions		1788	690	923	316	121	361	502	856	613	4220	2436	1075	1206



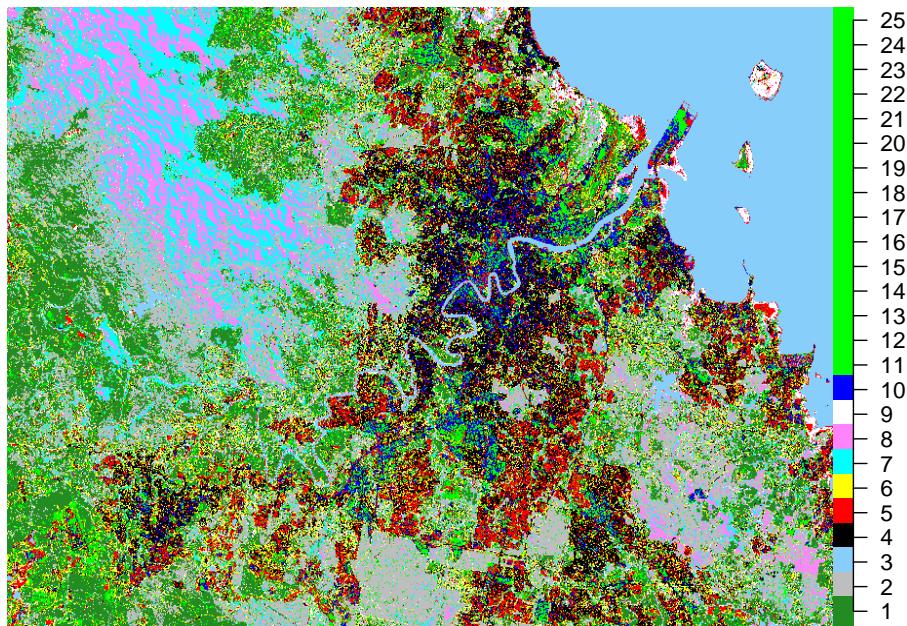
**Fig. S7** Cluster analysis of the satellite image of Brisbane area taken in May 2007. For clarity, the smaller clusters are merged into a single cluster (shown in bright green).

**Table S7** The percentages of fire ant colonies identified in each of the 20 spatial components over the period of 13 years. The 20 components (based on the classification of 2007 image shown in Figure S7). C.No indicate component numbers C.Size (in %) is the size of a cluster relative to image.

C.No	C.Size	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1	16.4	37.8	28.6	34.7	18.7	27.3	18.8	14.0	18.3	21.9	5.4	9.9	14.3	14.4
2	15.6	11.8	15.7	17.1	27.8	26.4	26.3	20.6	16.3	26.5	26.6	15.3	25.3	26.6
3	14.2	4.4	5.7	5.2	5.7	6.6	2.2	0.2	1.2	1.6	2.7	4.4	8.8	8.7
4	13.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
5	7.2	2.2	5.8	6.1	19.3	2.5	8.4	39.9	30.8	9.0	52.2	53.5	19.0	25.4
6	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
7	5.7	15.3	18.0	15.9	9.8	18.2	19.0	16.4	16.6	25.2	7.3	9.8	18.8	13.1
8	5.3	0.2	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.9
9	4.1	23.0	19.0	14.3	7.0	6.6	9.8	1.6	5.8	6.5	0.9	1.4	2.0	4.2
10	3.7	0.2	0.1	1.0	1.3	0.8	2.8	0.0	0.2	0.3	0.1	0.2	0.3	0.1
11	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	2.4	3.8	4.1	4.4	10.4	9.1	5.9	5.6	10.6	3.6	1.5	2.5	6.0	2.9
13	1.8	0.3	0.6	0.3	0.0	2.5	3.9	0.2	0.0	2.3	0.1	1.2	2.3	0.9
14	0.3	0.3	0.3	0.0	0.0	0.0	1.4	1.4	0.1	0.3	1.4	0.7	1.4	0.7
15	0.2	0.5	1.5	0.4	0.0	0.0	1.4	0.2	0.1	1.5	1.1	1.0	1.2	1.8
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.6	0.0	0.0	0.0
17	0.0	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total incursions		1788	690	923	316	121	361	502	856	613	4220	2436	1075	1206



**Fig. S8** Cluster analysis of the satellite image of Brisbane area taken in May 2008. For clarity, the smaller clusters are merged into a single cluster (shown in bright green).



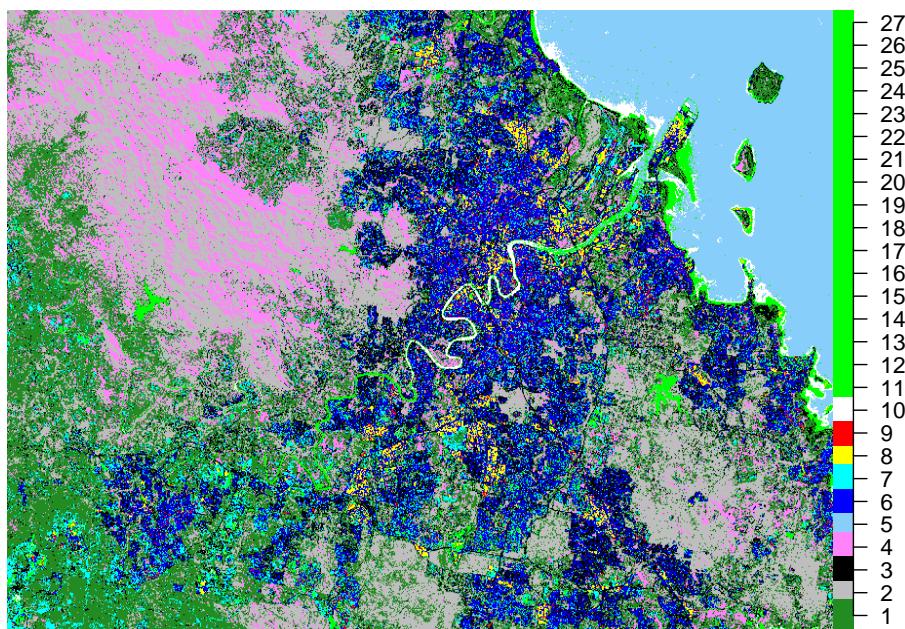
**Fig. S9** Cluster analysis of the satellite image of Brisbane area taken in May 2009. For clarity, the smaller clusters are merged into a single cluster (shown in bright green).

**Table S8** The percentages of fire ant colonies identified in each of the 20 spatial components over the period of 13 years. The 20 components (based on the classification of 2008 image shown in Figure S8). C.No indicate component numbers C.Size (in %) is the size of a cluster relative to image.

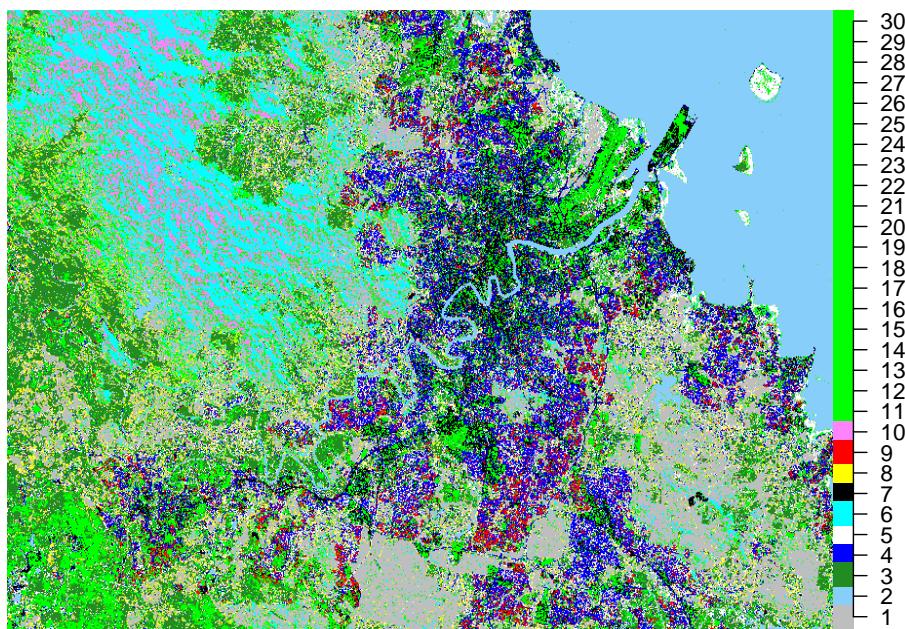
C.No	C.Size	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1	16.2	7.6	9.4	15.8	30.4	9.1	24.6	32.9	28.9	20.5	59.1	56.5	31.0	32.9
2	14.5	1.4	2.3	1.4	1.3	2.5	1.1	0.4	0.6	0.2	0.4	0.3	3.1	5.9
3	13.6	0.2	0.4	1.0	0.9	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.2	0.2
4	9.7	22.7	15.7	17.1	7.6	15.7	16.8	4.6	9.3	16.4	2.2	3.2	4.2	4.1
5	7.1	11.2	10.2	13.4	7.3	12.4	14.3	9.2	8.0	17.3	4.2	4.8	7.1	8.2
6	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	4.6	16.3	14.0	9.8	6.6	5.0	10.4	2.4	4.2	3.6	0.7	1.6	2.1	2.8
8	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	3.5	10.5	13.5	14.1	4.7	18.2	13.2	11.0	16.5	10.0	7.1	9.8	12.7	14.6
10	3.1	1.6	0.7	1.3	4.1	0.0	0.6	0.4	0.4	0.7	0.2	0.3	0.7	0.7
11	3.1	10.3	11.6	11.5	5.1	9.1	6.4	6.2	3.4	6.5	3.3	4.3	5.4	2.5
12	2.5	0.7	0.6	0.4	1.6	2.5	0.3	0.0	0.2	0.0	0.0	0.0	0.4	0.3
13	2.5	4.8	7.4	3.9	21.8	14.0	5.3	8.4	11.0	19.6	15.7	7.4	11.8	13.5
14	1.9	0.2	1.0	1.1	0.3	2.5	1.7	0.4	0.1	1.3	0.1	0.4	1.3	1.6
15	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0
16	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	1.1	7.0	7.1	5.5	3.8	0.8	2.0	0.2	0.2	0.5	0.3	0.2	1.3	1.0
18	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.9	0.5	0.1	0.5	0.0	0.0	0.0	2.0	1.3	0.3	0.1	0.2	0.6	0.2
20	0.8	2.1	2.2	1.6	3.2	7.4	0.8	17.0	8.1	2.5	5.8	9.5	16.7	10.7
21	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.3	1.4	1.5	0.2	0.9	0.8	1.7	0.0	0.5	0.3	0.2	0.8	0.0	0.2
23	0.3	1.3	1.7	1.1	0.3	0.0	0.8	0.0	0.0	0.3	0.0	0.3	0.0	0.2
24	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	3.3	0.0	0.1	0.0	0.0	0.1
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	3.3	0.0	0.2	0.0	0.0	0.0
29	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0
32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total incursions		1788	690	923	316	121	361	502	856	613	4220	2436	1075	1206

**Table S9** The percentages of fire ant colonies identified in each of the 20 spatial components over the period of 13 years. The 20 components (based on the classification of 2009 image shown in Figure S9). C.No indicate component numbers C.Size (in %) is the size of a cluster relative to image.

C.No	C.Size	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1	16.3	5.4	6.1	13.2	19.3	11.6	19.6	18.2	12.6	10.6	55.6	45.4	16.7	26.5
2	15.6	1.3	2.2	2.8	2.8	0.8	0.8	0.4	0.4	0.3	0.5	0.0	3.3	5.5
3	13.5	0.3	0.1	0.1	0.0	0.0	0.0	1.4	1.9	0.0	0.0	0.0	0.0	0.1
4	11.5	23.5	19.9	20.7	20.9	9.1	21.3	6.2	9.3	19.8	5.0	6.5	9.5	7.7
5	7.6	24.7	25.0	21.6	8.2	22.3	17.9	37.1	28.1	19.6	9.3	14.7	31.3	18.1
6	7.0	11.8	13.7	11.7	17.7	13.2	8.1	11.0	10.6	23.2	7.7	7.2	10.5	12.6
7	7.0	0.3	0.3	0.2	0.6	0.0	0.3	0.0	0.4	0.0	0.0	0.1	0.0	0.2
8	5.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
9	4.4	2.3	4.2	3.9	2.8	16.5	4.8	5.4	4.0	5.6	4.2	1.6	4.0	4.3
10	3.6	15.8	14.2	13.0	5.4	9.9	6.2	9.0	16.7	6.5	1.8	4.4	6.9	6.4
11	2.8	1.5	1.7	1.6	3.8	3.3	1.1	0.0	0.0	0.0	0.3	0.1	0.9	1.3
12	2.3	3.2	1.9	0.9	10.4	5.0	8.1	4.2	4.8	8.8	13.9	11.1	6.9	7.6
13	1.1	5.4	7.0	5.1	4.1	0.0	5.0	0.0	1.0	0.8	0.2	0.5	0.9	0.8
14	0.6	1.8	2.0	2.3	2.5	6.6	3.4	3.8	8.9	0.8	0.9	5.0	4.7	6.2
15	0.4	1.5	0.6	1.8	0.3	0.0	0.8	2.4	0.7	2.0	0.3	1.1	2.3	1.1
16	0.3	1.2	0.4	0.5	0.9	1.7	2.0	0.6	0.5	1.8	0.2	2.1	1.9	1.2
17	0.1	0.1	0.6	0.3	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.1	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
19	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total incursions		1788	690	923	316	121	361	502	856	613	4220	2436	1075	1206



**Fig. S10** Cluster analysis of the satellite image of Brisbane area taken in May 2010. For clarity, the smaller clusters are merged into a single cluster (shown in bright green).



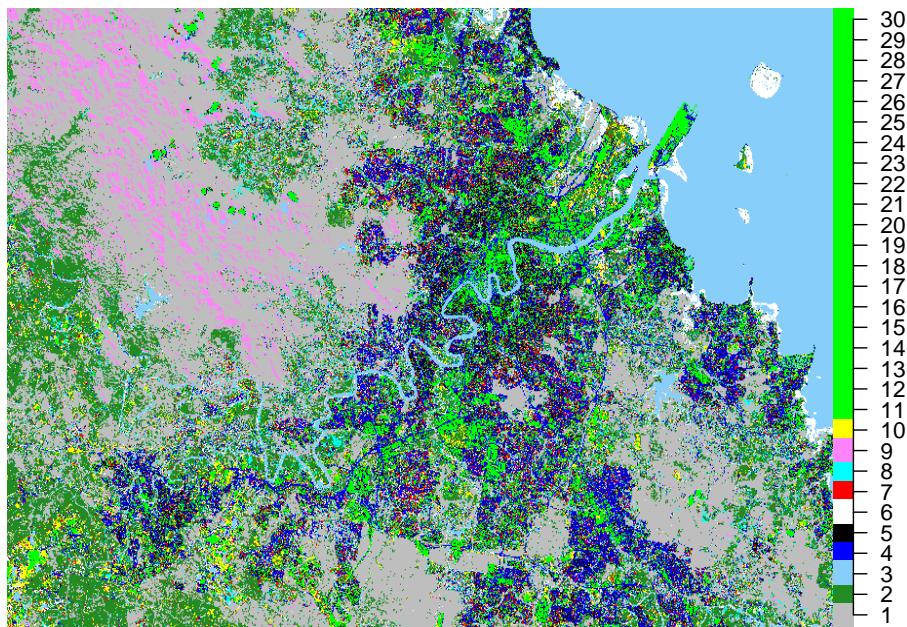
**Fig. S11** Cluster analysis of the satellite image of Brisbane area taken in May 2011. For clarity, the smaller clusters are merged into a single cluster (shown in bright green).

**Table S10** The percentages of fire ant colonies identified in each of the 20 spatial components over the period of 13 years (based on the classification of 2010 image shown in Figure ). C.Size (in %) is the size of a cluster relative to image.

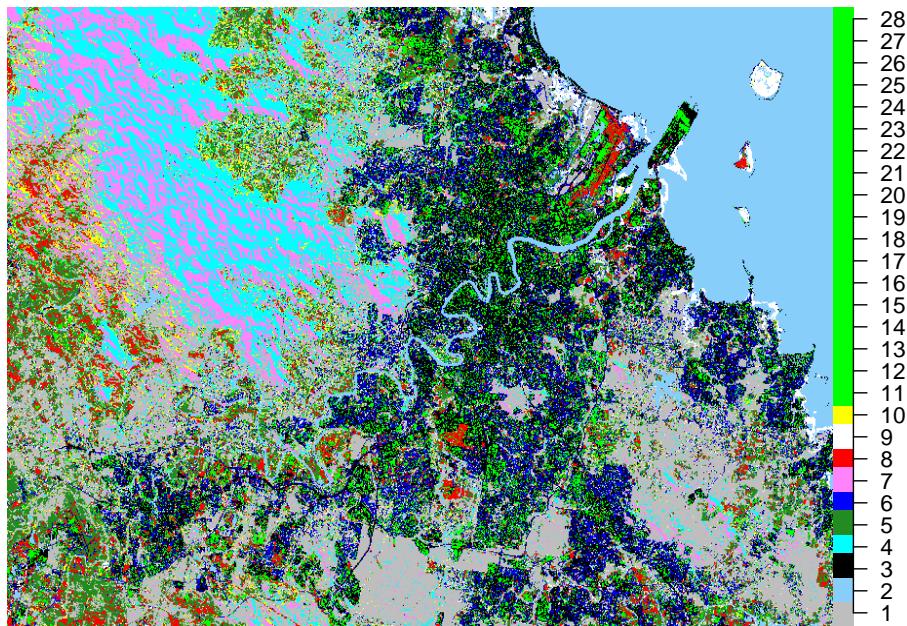
C.No	C.Size	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1	21.9	11.6	12.8	17.0	25.3	16.5	26.9	25.1	15.6	19.6	67.2	40.5	25.7	26.0
2	21.9	1.7	2.0	2.5	4.4	0.8	2.2	0.0	0.5	0.3	0.5	0.1	2.0	1.5
3	11.8	29.4	24.4	24.2	27.2	25.6	19.3	14.2	13.9	14.2	7.2	9.9	12.9	13.5
4	11.2	2.0	2.5	3.9	3.5	8.3	5.9	2.0	3.2	11.1	0.6	0.9	2.5	4.6
5	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	10.7	30.6	25.1	27.1	15.2	8.3	23.0	15.8	16.3	10.6	3.9	6.9	13.5	10.7
7	5.1	9.4	13.5	10.5	12.3	25.6	13.2	23.8	18.4	34.7	18.9	34.7	30.2	28.7
8	1.5	7.0	9.6	6.9	7.3	3.3	1.1	1.6	3.7	0.8	0.0	0.6	1.6	1.2
9	1.1	2.9	4.1	1.6	3.2	3.3	2.0	0.6	2.1	2.3	0.7	1.7	1.6	1.6
10	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.7	2.9	2.8	3.6	1.3	0.0	2.8	3.0	1.2	0.7	0.6	0.9	2.7	2.5
12	0.6	0.0	0.0	0.2	0.0	0.0	0.0	0.2	1.4	0.2	0.0	0.0	0.0	0.0
13	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.4	1.2	1.5	1.8	0.0	7.4	1.1	10.0	22.6	5.2	0.3	3.2	7.0	9.4
15	0.3	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.1
16	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
17	0.2	0.9	1.2	0.4	0.3	0.0	2.5	0.0	0.2	0.2	0.1	0.5	0.3	0.2
18	0.1	0.0	0.0	0.1	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.5	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.4	0.1	0.0	0.8	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total incursions		1788	690	923	316	121	361	502	856	613	4220	2436	1075	1206

**Table S11** The percentages of fire ant colonies identified in each of the 20 spatial components over the period of 13 years (based on the classification of 2011 image shown in Figure ). C.Size (in %) is the size of a cluster relative to image.

C.No	C.Size	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1	17.0	3.2	2.5	3.8	4.1	5.8	2.8	0.2	0.7	0.3	0.4	0.5	0.5	0.9
2	13.6	0.4	0.1	0.1	0.3	0.0	0.0	3.8	1.5	0.2	0.0	0.0	0.0	0.0
3	13.0	6.5	8.7	13.2	13.0	14.0	23.5	11.0	13.5	17.7	17.4	26.2	10.7	19.3
4	10.0	20.4	17.3	21.2	8.9	14.9	20.2	7.2	8.1	6.7	3.2	6.4	8.7	6.0
5	7.5	14.0	13.8	12.8	8.2	20.7	17.1	5.0	9.4	14.1	8.2	6.3	7.4	9.4
6	7.5	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
7	4.8	19.6	17.4	12.9	10.1	4.1	11.2	13.0	14.4	3.4	2.0	3.2	6.5	6.3
8	4.6	2.1	3.8	4.7	2.8	3.3	2.2	1.0	1.0	1.8	0.7	0.4	0.7	1.2
9	3.7	12.0	11.3	12.0	4.1	10.7	9.0	6.0	3.3	5.6	3.1	4.7	12.9	9.1
10	3.6	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	3.3	4.7	2.8	3.3	38.0	4.1	2.5	21.2	10.0	33.7	60.5	40.2	15.0	17.3
12	2.5	6.7	8.4	6.7	3.8	7.4	5.9	12.8	10.7	9.0	1.7	3.5	9.1	7.3
13	1.9	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	1.9	0.0	0.7	0.7	1.6	0.0	0.3	0.0	1.2	0.0	0.0	0.0	0.1	0.0
15	1.7	0.1	0.6	0.2	0.3	0.0	0.6	0.0	0.0	0.2	0.0	0.2	0.1	0.3
16	1.1	5.7	6.0	4.6	2.2	0.8	0.8	3.6	5.1	0.5	0.5	0.9	0.8	1.2
17	1.0	1.9	2.5	1.8	0.3	8.3	1.1	15.0	19.4	4.6	1.5	6.1	25.7	20.2
18	0.5	1.6	1.7	0.9	0.9	5.0	2.0	0.2	0.7	2.1	0.4	1.0	1.7	0.8
19	0.4	0.0	0.0	0.2	0.0	0.0	0.3	0.0	0.7	0.0	0.2	0.0	0.1	0.0
20	0.3	1.1	1.7	0.4	0.3	0.0	0.6	0.2	0.1	0.2	0.2	0.2	0.0	0.4
21	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.1
24	0.0	0.0	0.3	0.1	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total incursions		1788	690	923	316	121	361	502	856	613	4220	2436	1075	1206



**Fig. S12** Cluster analysis of the satellite image of Brisbane area taken in May 2012. For clarity, the smaller clusters are merged into a single cluster (shown in bright green).



**Fig. S13** Cluster analysis of the satellite image of Brisbane area taken in May 2013. For clarity, the smaller clusters are merged into a single cluster (shown in bright green).

**Table S12** The percentages of fire ant colonies identified in each of the 20 spatial components over the period of 13 years (based on the classification of 2011 image shown in Figure ). C.Size (in %) is the size of a cluster relative to image.

C.No	C.Size	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1	31.7	3.7	4.7	6.5	4.7	5.0	2.5	0.4	1.7	1.6	4.7	1.2	1.1	1.7
2	16.0	8.2	9.9	15.8	23.4	18.2	22.4	13.4	18.2	26.8	68.4	14.8	15.6	16.0
3	13.9	1.4	0.1	0.4	0.0	0.0	0.0	5.8	2.0	0.0	0.1	0.0	0.0	0.0
4	10.1	26.4	25.9	23.6	10.1	9.9	26.6	13.6	13.5	13.7	4.1	9.1	15.5	16.7
5	4.8	11.5	8.6	9.2	6.3	2.5	12.9	2.8	4.4	4.7	1.4	3.0	8.9	9.3
6	4.0	5.5	7.6	5.6	3.8	5.0	5.9	5.0	5.5	6.1	6.1	8.5	7.5	4.2
7	3.6	7.4	6.2	6.6	4.1	11.6	3.4	4.2	5.9	8.3	2.1	4.4	10.3	6.6
8	2.8	1.8	1.6	2.6	5.4	7.4	2.8	1.2	2.5	2.3	4.7	1.0	1.0	1.9
9	2.8	0.1	0.0	0.3	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.0
10	2.5	4.9	3.6	5.9	27.8	9.9	5.9	36.1	13.7	24.7	3.4	49.5	12.7	20.0
11	1.9	6.4	7.7	8.7	1.9	14.9	3.9	3.6	1.2	3.3	1.3	1.0	4.9	4.3
12	1.8	11.9	12.5	7.7	6.3	2.5	5.0	6.2	5.8	0.7	1.0	0.8	3.1	1.8
13	1.3	2.6	1.9	2.0	2.2	3.3	1.4	0.6	2.0	2.6	0.6	1.3	3.6	3.6
14	1.1	1.3	3.3	1.8	0.6	1.7	3.1	5.4	16.6	2.6	0.7	2.1	8.1	7.2
15	0.6	4.1	2.8	2.2	1.3	1.7	1.1	0.0	1.7	0.0	0.2	0.4	0.4	0.2
16	0.4	0.9	1.3	0.1	1.3	3.3	0.6	1.6	4.2	0.7	0.4	1.6	4.7	3.3
17	0.2	0.6	0.7	0.3	0.3	0.0	1.7	0.0	0.1	1.3	0.2	0.5	1.0	2.2
18	0.2	0.5	0.7	0.2	0.0	0.0	0.6	0.0	0.0	0.0	0.1	0.0	0.6	0.5
19	0.1	0.1	0.1	0.0	0.0	1.7	0.0	0.0	0.4	0.3	0.1	0.5	0.7	0.3
20	0.1	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
21	0.1	0.4	0.7	0.4	0.3	0.8	0.3	0.2	0.6	0.2	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
26	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total incursions		1788	690	923	316	121	361	502	856	613	4220	2436	1075	1206

**Table S13** The percentages of fire ant colonies identified in each of the 20 spatial components over the period of 13 years (based on the classification of 2013 image shown in Figure ). C.Size (in %) is the size of a cluster relative to image.

C.No	C.Size	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1	20.4	5.2	6.1	8.7	12.0	9.1	6.2	0.8	4.5	6.2	7.8	3.0	2.5	3.7
2	13.9	2.5	0.1	0.5	0.0	0.0	0.3	3.0	1.1	0.0	0.2	0.1	0.1	0.0
3	13.4	40.1	35.5	30.3	20.9	16.5	34.7	50.7	35.9	25.5	6.2	11.4	30.6	26.5
4	9.1	0.2	0.1	0.1	0.0	1.7	0.0	0.2	0.0	0.0	0.2	0.2	0.0	0.1
5	8.8	4.8	6.5	8.9	12.3	19.0	18.5	13.8	14.0	11.8	68.1	11.4	12.6	12.5
6	8.2	17.8	20.1	18.5	14.9	11.6	12.3	3.0	6.3	17.7	3.4	7.5	12.6	12.4
7	7.3	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	4.7	4.5	5.2	5.0	7.9	14.9	13.7	16.0	8.6	12.9	4.8	50.7	14.5	16.1
9	3.2	3.8	3.5	4.0	3.8	2.5	2.8	1.2	3.3	2.5	2.0	6.0	2.5	3.2
10	3.1	0.9	1.3	2.3	0.9	0.8	0.8	1.0	1.0	2.9	2.5	0.6	1.1	1.2
11	2.8	9.6	9.2	11.4	7.9	11.6	1.7	6.2	17.3	7.0	1.1	4.3	11.8	9.5
12	1.3	0.5	1.6	0.9	2.5	0.0	0.0	0.4	0.7	2.0	0.7	0.5	0.4	0.1
13	1.0	4.4	4.8	5.3	2.5	0.8	0.8	0.4	0.8	1.6	0.8	0.4	1.8	1.4
14	0.8	0.8	1.7	1.6	1.6	0.8	3.4	0.4	1.1	3.4	0.4	0.5	0.9	2.9
15	0.8	1.4	0.6	1.1	11.4	1.7	2.5	0.8	1.2	2.1	0.7	1.2	3.4	4.0
16	0.5	1.2	1.3	1.0	0.3	6.6	0.8	1.6	3.9	3.1	0.4	1.5	3.3	2.9
17	0.3	1.2	1.9	0.2	0.0	0.0	1.4	0.0	0.0	0.5	0.3	0.1	0.7	0.3
18	0.2	0.8	0.3	0.0	0.0	2.5	0.0	0.0	0.4	0.7	0.4	0.5	1.2	3.1
19	0.1	0.0	0.0	0.0	0.9	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total incursions		1788	690	923	316	121	361	502	856	613	4220	2436	1075	1206