- Characterization of the natural enemy community attacking cotton aphid in the 1 Bt cotton ecosystem in northern China 2 3 Abid Ali¹, Nicolas Desneux², Yanhui Lu¹, Bing Liu^{1,3}, Kongming Wu^{1*} 4 5 ¹ State Key Laboratory for Biology of Plant Diseases and Insect Pests, Institute of 6 Plant Protection, Chinese Academy of Agricultural Sciences, Beijing 100193, P.R. 7 China. 8 9 ² INRA (French National Institute for Agricultural Research), Univ. Nice Sophia 10 Antipolis, CNRS, UMR 1355-7254, Institut Sophia Agrobiotech, 06903, Sophia 11 Antipolis, France. 12 13 ³ College of Horticulture and Plant Protection, Yangzhou University, Yangzhou, 14 225009, China. 15 16 * Corresponding author: 17 Kongming Wu, 18 Email: wukongming@caas.cn; kmwu@ippcaas.cn
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Figure Legends

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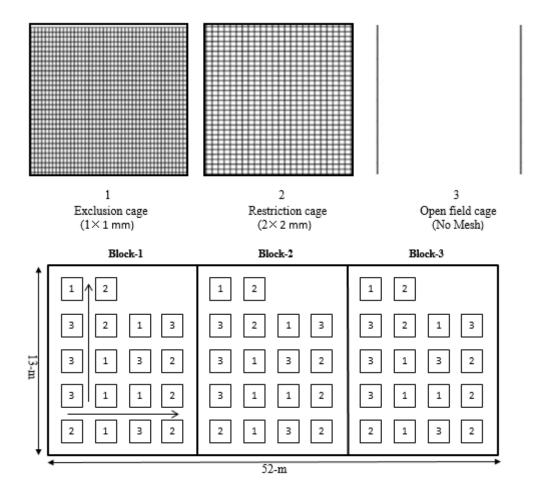
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Figure S1: Design of surveys in field cages experimental cotton during 2011, 2012 28 and 2013. Design of the three treatments, i.e. natural enemy exclusion degree, in the 29 field study; Exclusion cage: excluded all natural enemies (predators and parasitoid 30 31 aphids) and fully protected aphids, Restriction cage: prevented predator movement but allowed aphid parasitoids to enter in the cages, Open field cage: allowed free 32 access to the plants for all natural enemies. Three blocks each of 13 m x 15 m (and 2-33 m buffer surrounding the blocks), among 18 surveyed cages/plots per block (1-m 34 between two plots) and each plot having 10 plants. 35 Figure S2: Design of surveys in open field cotton during 2011, 2012 and 2013. 36 Three blocks each of 16 m x 15 m (and 2-m buffer surrounding the blocks), 20 37 surveyed fixed plots per block (1-m between two plots). 38 39 Figure S3: Comparison of seasonal mean population density (±SEM) of (a) cotton aphids, (b) coccinellids, (c) chrysopids, (d) anthocorids, (e) spiders and (f) aphid 40 parasitoids (mummies) per 100 plants surveyed during three cotton growth stages; (i) 41 early plant stage (May-June), (ii) middle plant stage (July), and (iii) late plant stage 42 (August- September) from end of May to early September in the open cotton field for 43 three growing seasons; 2011, 2012 and 2013 in Langfang experimental station 44 (Yellow River Region of China). Black = late stage, Gray = middle stage, white = 45 early stage. Lines are SEMs. Means with the same letter across growth stages are not 46

significantly different (Student-Neuman-Keuls means separation test, $\alpha = 0.05$).

48 Figure S1:





52 Figure S2:

	Block-1	Block-2	Block-3		
16-m	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 $	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 $		
	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 $	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 $	$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 $		
52-m					

Figure S3:

