

Supplementary Information

Construction of a high density linkage map and genome dissection of bruchid resistance in zombi pea (*Vigna vexillata* (L.) A. Rich)

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Table S1 Genome synteny between genetic linkage map of *Vigna vexillata* (LG1 – LG11) and reference genome sequence of cowpea (*V. unguiculata*), mungbean (*V. radiata*), azuki bean (*V. angularis*), and common bean (*Phaseolus vulgaris*)

LGs of zombi pea (<i>V. vexillata</i>)	Corresponding chromosomes of related legume species			
	Cowpea (<i>V. unguiculata</i>)	Mungbean (<i>V. radiata</i>)	Azuki bean (<i>V. angularis</i>)	Common bean (<i>P. vulgaris</i>)
1	1	2, 3, 5	4, 7	1, 5
2	2	11	10	2, 3
3	3	7	1	2, 3
4	4	1	11	4
5	5	4, 5	4, 7	5, 8
6	6	10	5	6
7	7	8	8	7
8	8	6	3	1, 8
9	9	5	2	9
10	10	9	9	10
11	11	2	6	11

Table S2. Correlation between resistance-related traits caused by *C. chinensis* and *C. maculatus* in the F₂ population of the cross between cultivated zombi pea "TVNu 240" and wild zombi pea "TVNu 1623"

	% damaged seeds caused by <i>C. chinensis</i>	AUDPS caused by <i>C. chinensis</i>	% damage seeds caused by <i>C. maculatus</i>
AUDPS caused by <i>C. chinensis</i>	0.9990***		
% damaged seeds caused by <i>C. maculatus</i>	0.7174***	0.6970***	
ADUPS caused by <i>C. maculatus</i>	0.7217***	0.7044***	0.9968***

***Significant at $P < 0.001$