Supplementary Figure 1. Damage of Catalpa bungei by Omphisa plagialis.
(A) The larvae of O. plagialis bore into the pith of C. bungei shoots and damage them. The damaged shoots are easy to be withered and wind broken (B), and the damaged sites would form galls, and more side-branches (C). (D) The longitudinal sections of uninvaded and invaded shoot stems. Bars = 1 cm (A–D).

Supplementary Figure 2. High sucrose concentration was unfavorable for primary callus induction in Catalpa bungei.
(A) 30 g/L sucrose; (B) 60 g/L sucrose; (C) 90 g/L sucrose. Bars = 1 cm (A–C).
**Supplementary Figure 3.** Phenotypes of five types of embryogenic calli. Bars = 1 cm.

**Supplementary Figure 4.** Optimal concentration of kanamycin for selecting potential transgenic embryogenic calli. The embryogenic calli turned brown after culturing for 20 d in DM11 with different concentration of kanamycin. Bars = 1 cm.
Supplementary Figure 5. Statistics on the frequency of damaged plants by *Omphisa plagialis* of wild-type and transgenic lines in the field. Results are presented as means and standard errors from 60 wild-type (WT), 38 Cry2A OE-3, and 56 Cry9Aa-like OE-8 transgenic plants, ** p < 0.01, ns indicates no significant difference (Student’s t-test).

Supplementary Figure 6. Schematic diagram for *Agrobacterium*-mediated transformation of *Catalpa bungei*. 