

Supplementary Material for:

A new galling insect model enhances photosynthetic activity in an obligate holoparasitic plant

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Fig. S1 Galls of *Smicronyx madaranus* formed in the nodes of *Cuscuta campestris* in the laboratory. Arrow head, gall.

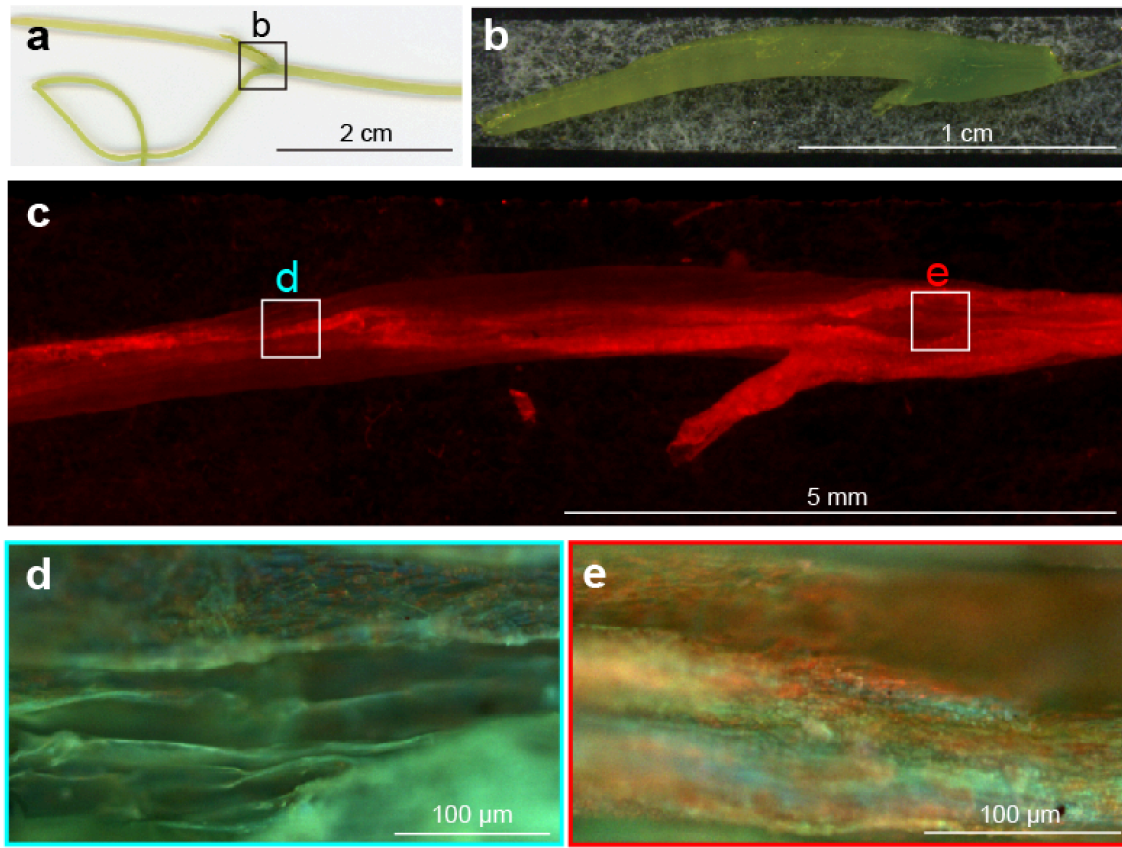


Fig. S2 Distribution of chlorophylls and chloroplasts in the shoot of *Cuscuta campestris*. (a) Shoots of *C. campestris*, and (b) sagittal section of the branching point that corresponds to b in panel a. (c-e) autofluorescence of chlorophylls (red) and lignin (green), (d) and (e) magnified images of the points in shoot and the branching point in panel c.

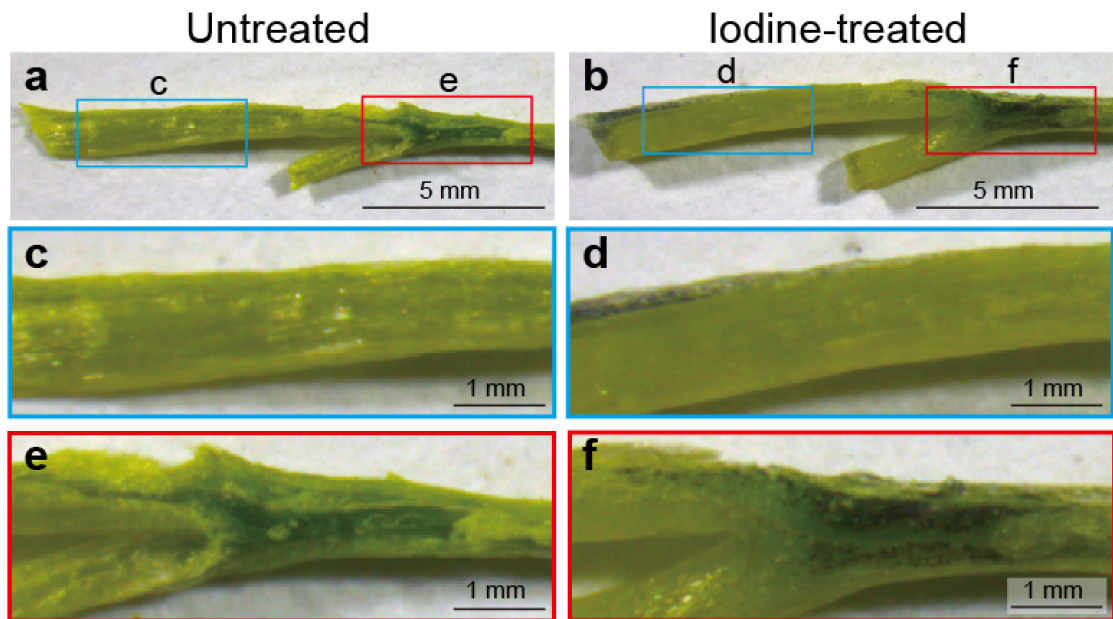


Fig. S3 Distribution of starch in the shoot (a, c, and e) Sagittal section of the shoot and branching point. In (b, d, and f), starch was detected as blue-black colour upon staining with Lugol's iodine solution.

Supplementary videos

Movie S1 Egg-laying behaviour of *Smicronyx madaranus* (left). Enlarged image around the weevil (right).

Movie S2 Plant-boring behaviour of *Smicronyx madaranus* (left). Enlarged image around the weevil (right).

Movie S3 A larva feeding the inside tissue at the mid stage of the gall.