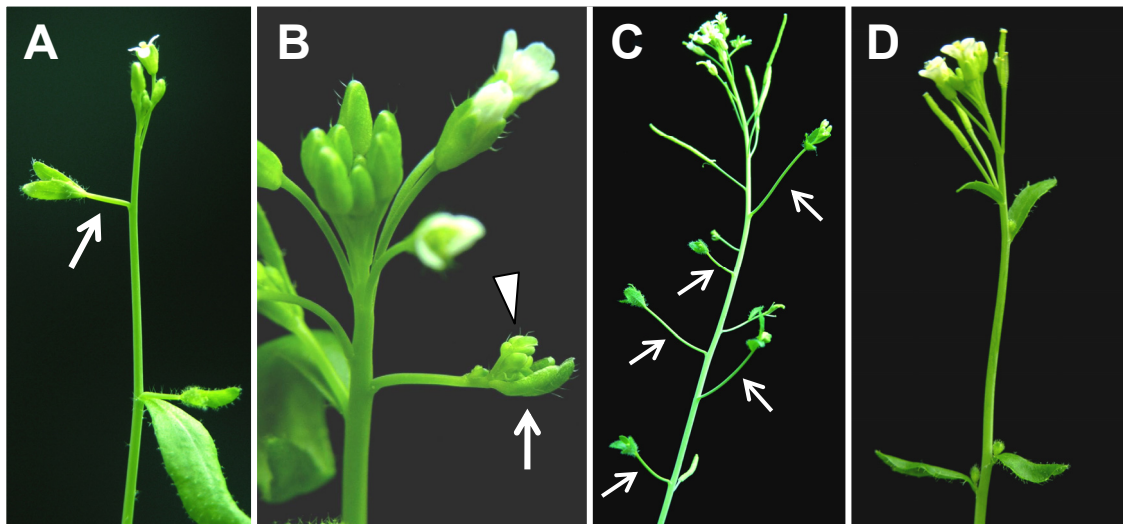


Supplemental Data. Karim et al. (2009). A Role for *Arabidopsis PUCHI* in Floral Meristem Identity and Bract Suppression.



Supplemental Figure 1. Inflorescence Phenotypes of the *puchi-2* Mutant.

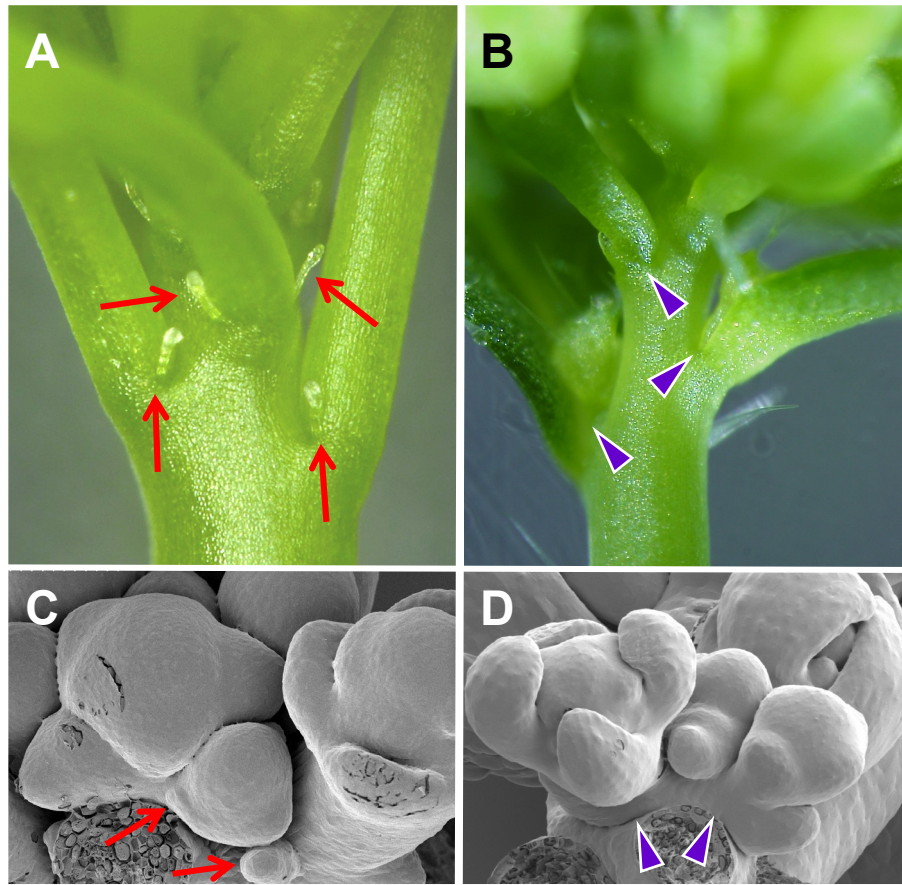
puchi-2 mutant plants grown under continuous-light ([A] and [B]) or short-day ([C] and [D]) conditions.

(A) Primary inflorescence. The uppermost secondary inflorescence is not subtended by a cauline leaf (arrow).

(B) Primary inflorescence producing a mosaic structure that is intermediate between a flower (arrow) and an inflorescence-like shoot (arrowhead).

(C) Primary inflorescence grown under short-day conditions, showing the production of ectopic branches (arrows).

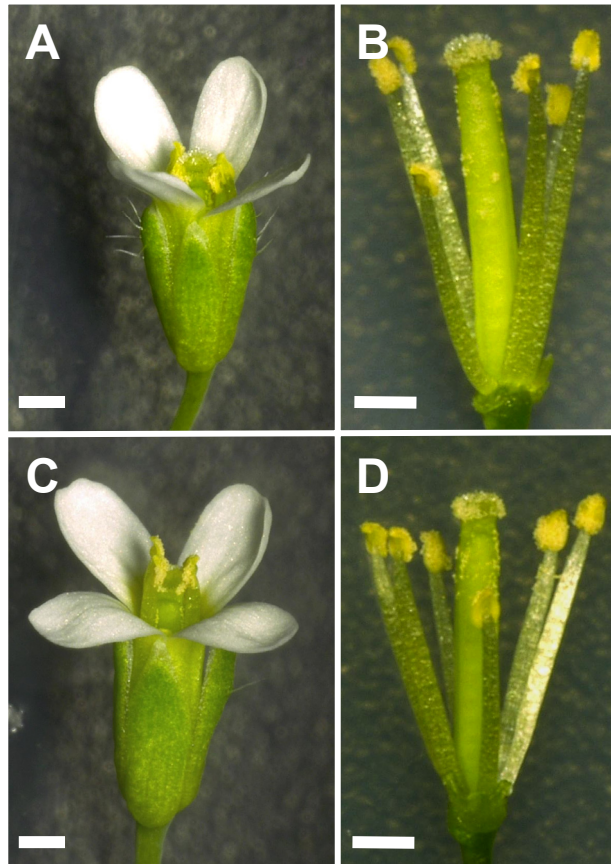
(D) An ectopic branch, which is appeared from the primary inflorescence in a position normally occupied by a flower in wild type, is indistinguishable from the primary inflorescence.



Supplemental Figure 2. Formation of Pin-Shaped Projections in *puchi* Is Dependent on the *PRESSED FLOWER* (*PRS*) Gene.

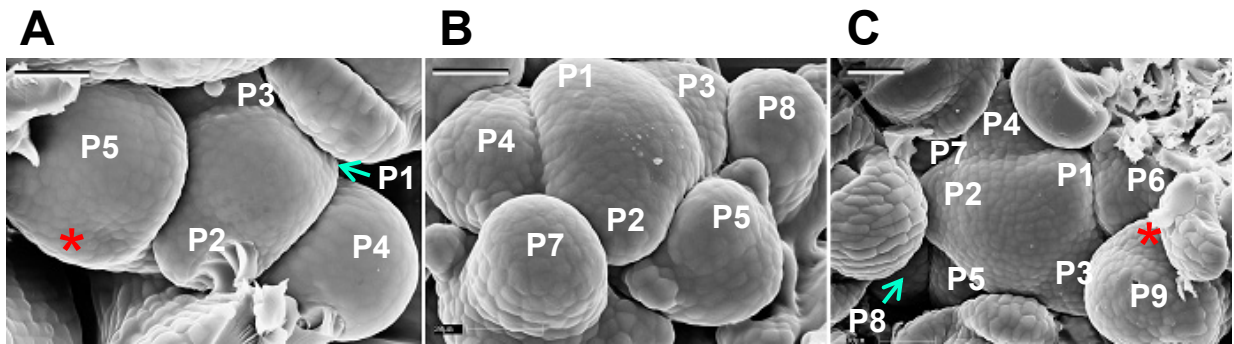
(A) and (B) Close-up view of primary inflorescences of *puchi-1* (A) and *puchi-1 prs* (B) mutants. The pin-shaped projections of *puchi* (arrows in [A]) are lost in the *puchi prs* double mutant (arrowheads in [B]).

(C) and (D) Scanning electron micrographs (SEMs) of *puchi-1* (C) and *puchi-1 prs* double (D) mutant inflorescence apices. The pin-shaped projections of *puchi* (arrows in [C]) are lost in *puchi prs* double mutant flower primordia (arrowheads in [D]).



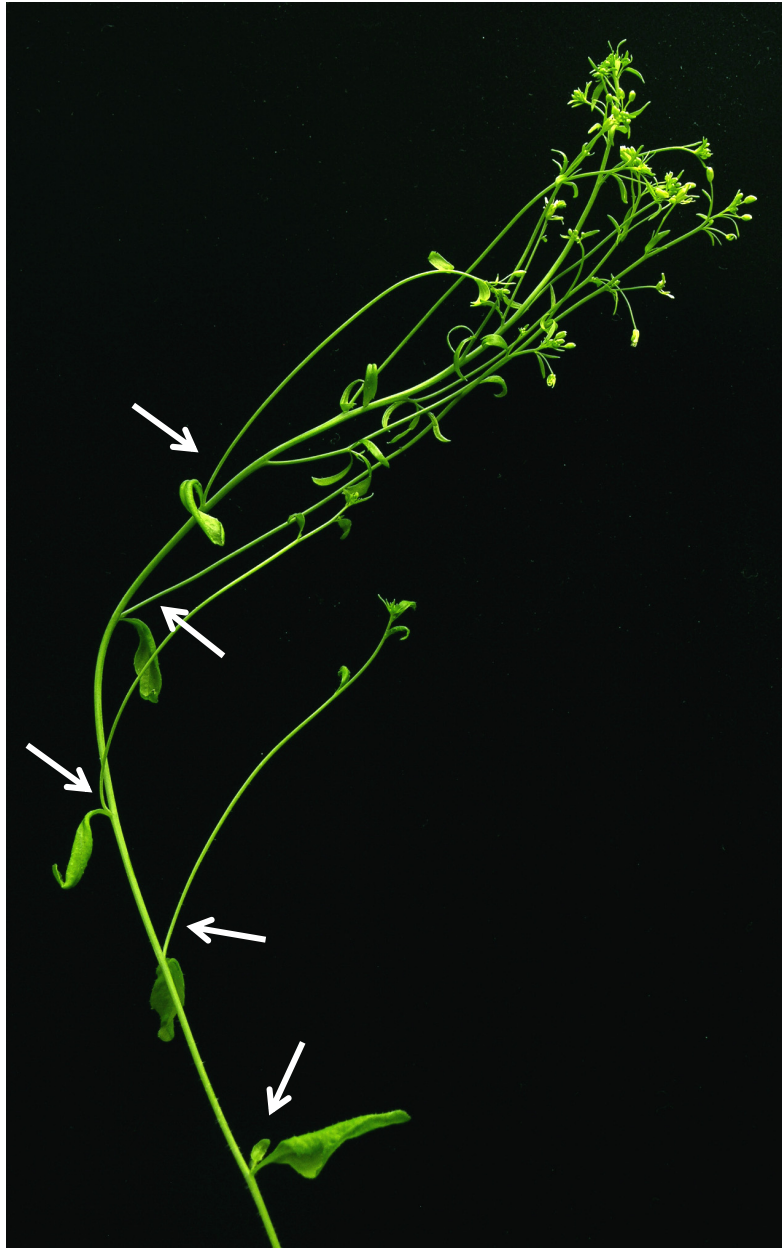
Supplemental Figure 3. *puchi* Flower Phenotypes.

(A) to (D) Mature flowers of wild type ([A] and [B]) and *puchi-1* ([C] and [D]). In (B) and (D) sepals and petals were removed to expose the inner two whorls. *puchi* mutant flowers are indistinguishable from those of wild type. Bars = 500 μ m.



Supplemental Figure 4. Sepal Formation Is Delayed in *puchi* Mutant.

(A) to (C) Scanning electron micrographs obtained from replicas of inflorescence shoot apices of wild-type (A) and *puchi-1* (B) and (C) plants are shown to illustrate the delay in sepal (asterisks) formation in the mutant. Numbers indicate the plastochron age of flower primordium. P, flower primordium. Bars = 30 μ m.



Supplemental Figure 5. Fifty-day-old primary inflorescence of the *puchi bop1 bop2* mutant grown under continuous-light conditions. Basal secondary inflorescences are subtended by cauline leaves (arrows).

Supplemental Table 1. Number of Rosette Leaves of *puchi* Mutants Grown Under Continuous-Light (CL) and Short-Day (SD) Conditions.

Condition	Genotype	No. of rosette leaves	No. of plants scored
CL	Col	14.47 ± 0.18	30
	<i>puchi-1</i>	14.90 ± 0.24	30
	<i>puchi-2</i>	14.77 ± 0.28	30
SD	Col	59.70 ± 1.13	20
	<i>puchi-1</i>	61.25 ± 0.89	20
	<i>puchi-2</i>	60.10 ± 0.95	20

The number of rosette leaves was counted at bolting. Values are mean ± standard error.

Supplemental Table 2. Floral Architectures of the *puchi-1* Mutant.

Genotype	Sepals	Petals	Stamens	Carpels
Col	4.0 ± 0.0	4.0 ± 0.0	5.97 ± 0.02	2.0 ± 0.0
<i>puchi-1</i>	4.0 ± 0.0	4.04 ± 0.03	5.91 ± 0.04	2.0 ± 0.0

Flowers were dissected and individual floral organs were counted under a stereoscopic microscope. Values are mean ± standard error (n = 45).
