

Table S8. Morphological characteristics observed and measured for *Engelhardia* (25 in total). Bold font indicates the 14 characters used for principal component analysis.

State	Type	Coding			
1 Thickness of leaflets(mm)	quantitative				
2 a: Length of leaflets(cm)	quantitative				
3 b:Width of leaflets(cm)	quantitative				
4 a/b	quantitative				
5 Length of petiole (cm)	quantitative				
6 Number of lateral veins	quantitative				
7 Number of leaflets(twain)	quantitative				
8 Length of inflorescences(cm)	quantitative				
9 Length of middle bracts(cm)	quantitative				
10 Width of middle bracts(cm)	quantitative				
11 Length of lateral bracts(cm)	quantitative				
12 Width of lateral bracts(cm)	quantitative				
13 Length of carpopodium(cm)	quantitative				
14 Apex of leaflets	qualitative	acuminate(0)	shortly acuminate(1)	elliptic(2)	
15 Base of leaflets	qualitative	rounded(0)	oblique(1)		
16 Margin of leaflets	qualitative	entire(0)	serrata(1)		
17 Hairs of leaflets	qualitative	glabrous(0)	lightly hirsute(1)	densely hirsute(2)	
18 Arrange of leaflets	qualitative	equals(0)	gradually becomes smaller(1)	the last pair small dramatically(2)	
19 Colour of twigs	qualitative	black(0)	grayish white(1)	else(2)	
20 Hairs of branchlet	qualitative	glabrous(0)	densely hirsute(1)	lightly hirsute(2)	
21 Hairs of terminal bud	qualitative	glabrous(0)	densely hirsute(1)	lightly hirsute(2)	
22 Position of inflorescences	qualitative	old branch(0)	new branch(1)		
23 Flowers	qualitative	female(0)	male(1)	both(2)	
24 Inflorescences	qualitative	terminal(0)	lateral(1)		
25 Hairs of fruit	qualitative	glabrous(0)	densely hirsute(1)		