**1. Table contents of data1.csv**



**Fig. S1** A demonstration of blade cutting. Here, *L*1, *L*2, *L*3, *L*4 and *L*5 represent the intersection areas between the five equidistant strips, formed by six adjacent vertical blue lines, and the left side of the blade; *R*1, *R*2, *R*3, *R*4 and *R*5 represent the intersection areas between the five equidistant strips and the right side of the blade. In practice, 1000 strips rather than five strips were used to carry out blade cutting. In this figure, we used five strips to conveniently show that. Blade length was defined by the distance from blade base to apex, and blade width was defined by the maximum distance between any two points on the blade edge that formed a straight line perpendicular to the straight line through blade base and apex.

Species – species code

n1 – the number of data points on the edge of the left side of a blade

n2 – the number of data points on the edge of the right side of a blade

n – the number of data points on the edge of the whole blade

Mean – the mean absolute area difference (in cm2) between the left subregion and the right subregion, which equals

Var – the variance of the absolute area difference between the left subregion and the right subregion

upper.area – the left side’s area of a blade (in cm2), i.e.,

lower.area – the right side’s area of a blade (in cm2), i.e.,

SI – the standardized index for leaf bilateral symmetry measure, which equals

AR – the left to right side surface area ratio of a blade, which equals

scan.length – blade length (in cm)

scan.width – blade width (in cm)

scan.area – blade surface area (in cm2), which actually equals upper.area + lower.area

scan.perimeter – blade perimeter (in cm)

FM – blade fresh mass (in g)

DM – blade dry mass (in g)

Genus – the genus of the bamboo that the leaf belongs to

LatinName – the scientific name of the bamboo that the leaf belongs to

**2. Table contents of data2.csv**

Species – species code

Mean.LMA – mean leaf dry mass per unit area (in g/m2)

SD.LMA – the standard deviation of leaf dry mass per unit area (in g/m2)

Min.LMA – the minimum leaf dry mass per unit area (in g/m2)

Max.LMA – the maximum leaf dry mass per unit area (in g/m2)

N – the sample size, i.e., the number of the sampled leaves for each data set

Mark.LMA – The marks for showing the significance of the difference between any two leaf dry mass per unit area values (in g/m2) based on the Tukey’s Honestly Significant Difference (HSD) test with 0.05 significance level

**3. Table contents of data3.csv**

Species – species code

Mean.QWL – mean quotient of blade width and length (QWL)

SD.QWL– the standard deviation of QWL values for each data set

Min.QWL – the minimum QWL for each data set

Max.QWL – the maximum QWL for each data set

N – the sample size, i.e., the number of the sampled leaves for each data set

Mark.QWL – The marks for showing the significance of the difference between any two QWL values based on the Tukey’s Honestly Significant Difference (HSD) test with 0.05 significance level

**4. Table contents of data4.csv**

Species – species code

beta – the estimated intercept in the linearized formula ln(*DM*) = β + α ln(*A*), where *DM* represents blade dry mass (in g), and *A* represents blade surface (in cm2)

alpha – the estimated slope in the linearized formula ln(*DM*) = β + α ln(*A*)

sd.beta – the standard deviation of the intercept

sd.alpha – the standard deviation of the slope

lci.beta and uci.beta represent the lower and upper bounds of the 95% confidence interval of the intercept, respectively

lci.alpha and uci.alpha represent the lower and upper bounds of the 95% confidence interval of the slope, respectively

RSS – the residual sum of squares

r2 – the coefficient of determination, which is used to indicate the goodness of fit

N – the sample size, namely the number of the sampled leaves for each data set