Supplementary file 1: Assessment of bee mandibular strength

(Based on Ibanez S, Lavorel S, Puijalon S, Moretti M (2013) Herbivory mediated by coupling between biomechanical traits of plants and grasshoppers. Functional Ecology 27: 479–489.)

 $F = F_A x (L_A / L_M) x 1 / R_C$

F = force of mandible

 F_A = force of adductor muscle (area of mandible section as proxy)

 L_A = lever of adductor muscle

 L_M = lever of mandible

 R_C = width of cutting margin

