



Figure S1 Claspers (top panel), posterior lobes (middle) and anal plates (bottom panel) of F1 (D/w501), D and Q introgression lines and *D. simulans* w501. Green shading represents the area measured for each trait of introgression lines. The cuticle on the proximal end of the claspers, typically harbouring four bristles has a tendency to fold in when mounted on a slide in *D. simulans* but not in *D. mauritiana*. Therefore, to standardise the measurement of clasper area, we traced a closed contour of each clasper starting at the 4th proximal bristle and finishing in the distal limit of the structure. The area of posterior lobes was determined from an outline of the structure delimited by an artificial base line at its proximal end. Since the anal plates are closed structures, the measurement of their area was defined simply by their contour. Finally, the yellow dashed outline in the top left panel indicates the clasper size measurement used in the QTL mapping analysis. The scale bar corresponds to 50 μm in all images.