



Fig. 1. (all *T. binghami* workers). (a) Dissection view of the sting (st) with attached alimentary tract. BP, bacterial pouch; INT, intestine; MG, midgut; MT, Malpighian tubules; nc, nerve cord; pg, poison gland; R, rectum (scale bar 1 mm). (b) Scanning micrograph of the bacterial pouch (BP) with connected Malpighian tubules. INT, intestine; MG, midgut (scale bar 100 μm). (c) Scanning micrograph detail of finger-like branching of tracheae (tr) on surface of bacterial pouch (scale bar 50 μm). (d) Longitudinal semithin section through bacterial pouch, showing tracheal penetration (tr) from distal part. Note transition zone with epithelial fold between thin and thick epithelial lining [encircled; see detail in Fig. 3(f)]. \star : region where Malpighian tubules (MT) open into bacterial pouch. ME, microvillar epithelium. Grey filling of pouch is formed by huge amounts of bacteria. Opening into gut is near lower right corner (scale bar 100 μm).