

*Halobatodes*) the only insects with an organisation adapted to a truly pelagic mode of life. The head, in addition to the antennæ (fig. 179, *a*), bears three tubercles on either side, surmounted by a single hair, but of unknown function. The mandibles are pointed and serrated, and serve to puncture the creatures upon which they feed, whilst they suck out the juices through a kind of tubular proboscis formed by the united maxillæ. The thorax forms by far the largest part of the body; the first segment is transverse and collar-like, the second and third elongated and fused, and produced behind and below into the acetabula with which the hinder legs are articulated (fig. 179, ♂, ♀). The abdomen is larger in the male than in the female; it consists of six ring-like segments followed by three others specially modified (fig. 179, *g, g.a*). The abdomen of the female consists of

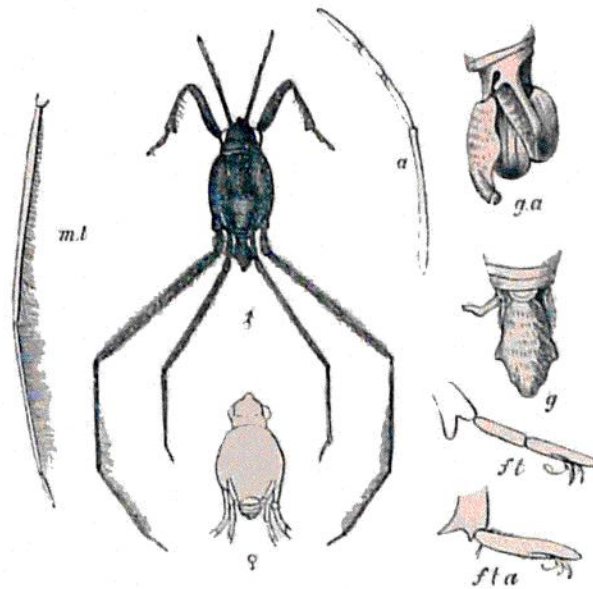


FIG. 179. — *Halobates wuellerstorffi*, Frauenfeld.

♂, Male, upper side; ♀, outline of the body of the female; *a*, antenna; *ft*, front tarsus; *fta*, front tarsus of the larva; *m.t.*, middle tibia and tarsus; *g*, genital segments of the male, from above; *g.a*, the same in profile.

the same number of segments and carries an ovipositor made up of four valves; in both sexes the ventral surface of the first segment bears a curious tubercle whose extremity is pierced by a transverse perforation. The fore-legs are short, and for the greater part of their length lie well in advance of the body, without being raptorial they are fitted for grasping; and the second joint of the tarsus is furnished with two curved sharp-pointed claws, as well as a thin ribbon-like process (fig. 179, *ft*). The two hinder legs are long, and by their means the little creatures scud over the surface of the water.

The tarsus of the middle legs (fig. 179, *m.t*) has a fringe of long hairs, which probably serves to aid the animal in swimming or to prevent its being so readily driven by the wind.