<sup>125</sup>I-labelled proteins of molecular weight 68 000, 55 000 and 46 000 and glycoproteins of molecular weight 64 000, 46 000 and 29 000 were identified on the surface of *Leishmania* S17 from the anterior gut of a phlebotomine caught in the Machakos District of Kenya. A glycoprotein of molecular weight 100 000 was sometimes labelled.