Adicional file 1 - Morphological characters for distinction between *Culex univitattus* and *Cx. perexiguus*, adapted from Jupp (1971), White (1975), and Harbach (1985, 1988).

	Spe	cies
Character	Culex univittatus Theobald, 1901	Culex perexiguus Theobald, 1903
I. Ventral surface of proboscis	• pale in middle	 pale except at base weakly pale on distal 0.25
II. Postspiracular area	• tendency for scales to cover less than dorsal 0.5	• tendency for scale to cover more than dorsal 0.5
III. Forefemur	• sometimes with indistinct anterior pale stripe	• usually with indistinct anterior pale stripe
IV. Midfemur	• with complete distinct or indistinct anterior pale stripe	• with or without incomplete faint or distinct anterior pale stripe
V. Hindfemur	proportion of the length of femur occupied by the dorso-a • $R \ge 80\%$	nterior black stripe or "femoral index" (R) • $R \le 70\%$
VI. Hindtibia	 with distinct anterior and posterior pale stripes on proximal 0.8, separated ventrally by complete dark stripe; with distinct apical pale spot 	 with distinct anterior and posterior pale stripes on proximal 0.8, partly separated on proximal 0.5 or less by weak ventral dark stripe; with distinct apical pale spot
VII. Wing		
a. Costa	• with short line of pale scales at base	• with short line of pale scales at base
b. Vein 2A	• female usually with line of scales	• female occasionally with few scales
 VIII. Male genitalia a. Seta g b. Seta f c. Ventral arm 	 narrow, "leaflet index" R1 = width/length*100 ≤ 50% tip narrow/unswollen longer than width of lateral plate at point of attachment 	 broad, "leaflet index" R1 = width/length*100 ≥ 50% tip narrow/unswollen shorter than width of lateral plate at point of attachment