

grooves or ridges, and lacks any radial pattern, effectively distinguishing it from the aetosaurs *Desmatosuchus* (CASE 1922 ; see also Long & Ballew, 1985), *Longosuchus* (HUNT & LUCAS, 1990), *Stagonolepis* (WALKER, 1961 ; including *Calyptosuchus* of Long & Ballew, 1985), *Aetosaurus*, (WALKER, 1961), *Paratypothorax* (LONG & BALLEW, 1985), *Aetosauroides* (CASAMIQUELA, 1960), and *Neoaetosauroides* (BONAPARTE, 1969 ; 1970). The presence of a ventral keel and the lack of a prominent central eminence or raised boss further separates *Redondasuchus* from the above taxa, although it provides a superficial resemblance to *Typothorax*. Indeed, specimens of *Redondasuchus*, particularly YPM 4256 and 4257, have occasionally been referred to *Typothorax* (e.g. Lucas *et al.* 1985 ; museum labels on YPM and UCMP specimens). However, the discontinuous ventral keel of *Redondasuchus* terminates at the flexure, as opposed to the continuous keels and unflexed scutes that typify *Typothorax*. Thus, *Redondasuchus* is easily diagnosed from all aetosaurs, including *Typothorax*, by its marked ventral flexure of the dorsal paramedian scutes two-thirds of the width of the scute from the midline and discontinuous ventral keel.

Some clarification of the original description of the holotype of *Redondasuchus reseri* is presented here. The holotype has a width (not length, as stated by Hunt & Lucas [1991a]) of 90 mm in dorsal aspect. The length of the scute is approximately 45 mm. As noted by Hunt & Lucas (1991a), the anterior bar on UCMP 65415 is approximately 10 mm wide, flaring out somewhat along the medial edge. The ventral keel varies slightly in width from 16 mm near its termination to 20 mm near the midline. The keel is located so that slightly more than half of the keel lies on the anterior portion of the scute, with the anterior margin of the keel typically positioned approximately 10 mm from the anterior edge of the scute.

Referred material - YPM 4256 and 4257 (Fig 4B,A) exhibit the non-radial pitting, ventral keel, and, particularly in the case of 4257, marked flexure, that typifies *Redondasuchus*. YPM 4257, if it were complete, might be slightly larger than the holotype scute of *Redondasuchus*, as is one scute fragment from NMMNH 25003, and all other scutes are roughly subequal to or smaller than the holotype. All scute fragments listed above from the YPM collection, with the exception of 55715, can be demonstrated to belong to *Redondasuchus* on the basis of having at least two of the following features: (1) marked flexure ; (2) pitted ornamentation lacking both a radial pattern or prominent eminences ; and (3) presence of a discontinuous ventral keel. UCMP 65314 and 65331 can be assigned to *Redondasuchus* for the same reasons.

YPM 55715 is a likely candidate for first cervical dorsal paramedian scute (Fig. 3D-F'). There is a discontinuous ventral keel, but the scute is not flexed. The pitting on the dorsal surface is randomly distributed, and both the anterior and posterior margins are curved in an irregular fashion, indicating that YPM 55715 articulated with other oddly shaped scutes or bones. Another unusual scute, UCMP 65258, the "problematic scute" of Hunt & Lucas (1991a, p. 733), also possesses *Redondasuchus*-like pitting and some degree of flexure, but is more equant than the holotype and other referred specimens that are complete enough to estimate overall shape (Fig. 3G-I). It lacks a prominent ventral keel, but the sinuous anterior margin of the scute precludes assignment of this scute to any other known aetosaur, and its association with other scutes of *Redondasuchus* is strong evidence that it belongs to this taxon. Hunt & Lucas (1991a, p. 733) considered it likely that UCMP 65258 represents an anterior cervical scute, noting that the sinuous anterior edge was not repeated on the posterior side, and thus may represent the articulation of this scute with a scute directly behind the skull. With our interpretation of YPM 55715 as the first cervical scute this seems less likely, as YPM 55715 and UCMP 65258 do not articulate, but nonetheless UCMP 65258 appears to represent an anterior cervical paramedian scute of *Redondasuchus*. Among the other known North American aetosaurs, only *Paratypothorax* is not currently represented by cervical scutes. However, no aetosaur other than *Redondasuchus* and another undescribed aetosaur (Hunt 1994, unpub.) is known from the Redonda Formation or any correlative horizons, and the association of YPM 55715 and UCMP 65258 with other scutes of *Redondasuchus* in Gregory's Apache Canyon Quarry # 2 suggests that these specimens pertain to *Redondasuchus*.

YPM 55716 is a partial dorsal paramedian scute which is identified as *Redondasuchus* because of its keel and random pitting (Fig. 4I). It apparently broke in the immediate vicinity of the flexure. YPM 55717 is essentially a mirror image of 4257, indicating that it is a partial left dorsal paramedian scute (Fig. 3J). YPM 55718 is either a posterior sacral or anterior caudal paramedian. It is incomplete, but what is present lacks strong flexure. However, it has an anterior bar, randomly distributed pitting, and a ventral keel. The posterior margin is oddly shaped, essentially tapering anteriorly toward the lateral margin, suggesting that the next scute posterior to YPM 55718 was significantly narrower (Fig. 4H). For these reasons, we suggest that YPM 55718 may represent a sacral paramedian scute, marking the transition from relatively wide paramedians covering the sacrum to a narrower series of paramedian scutes protecting the tail. YPM