

**Supplemental Table 2.** Ontogenetically-variable characters in theropods with reference to published sources and characters within this dataset that are potentially affected.

Ontogenetically variable trait	Source	Characters potentially affected
Change in relative size of orbit	Varrichio, 1997; Carr, 1999; Bever and Norell, 2009	125: Size of infratemporal fenestra relative to orbit
Change in tooth count	Varrichio, 1997; Carr, 1999; Bever and Norell, 2009	220: Number of maxillary teeth; 230: Number of dentary teeth
Elongation of the facial bones, particularly maxilla	Varrichio, 1997; Carr, 1999; Bever and Norell, 2009	127: Length of preorbital region
Rounding of the premaxillary symphysis	Bever and Norell, 2009	4, 5: Fusion and shape of premaxillary symphysis
Elongation of external naris	Bever and Norell, 2009	52: Relative length of external naris
Elongation of antorbital fenestra	Bever and Norell, 2009	34: Relative length of antorbital fenestra;
Caudal shift in antorbital cavity relative to tooth row	Bever and Norell, 2009	219: Length of maxillary tooth row
Ventral deflection of angle of nasal	Bever and Norell, 2009	27: Offset of nasal process of maxilla

process of maxilla		
Changes in interfenestral pila	Bever and Norell, 2009	20: Foramen on interfenestral pila
morphology		
Development of cranial ornamentation	Varrichio, 1997; Carr and Williamson, 2010	46, 47, 50: various aspects of nasal ornamentation; 62: Presence of jugal rugosity; 67: Presence of lacrimal crests; 90: Presence of postorbital boss; 103: parietal boss
Inflation of ectopterygoid body	Carr and Williamson, 2010	118: Inflation of ectopterygoid
Change in size of the maxillary fenestra	Rauhut and Fechner, 2005; Currie et al., 2003; Bever and Norell, 2009	17, 18, 19: Position of maxillary fenestra
Development of 'spurs' in orbital region	Currie, 2003	75: Lacrimal orbital spur; 93: Jugal postorbital spur
Changes in curvature of ventral edge of maxilla	Carr, 1999	44: Curvature of ventral edge of maxilla
Enlargement of sagittal crest	Varrichio, 1997	101, 102: Aspects of sagittal crest morphology
Increase in robustness of muscle insertion scars	Varrichio, 1997	517: Insertion scar for m. iliofibularis

Changes in Varrichio, 2002  
limb  
proportions  
Coossification Allain et al., 2007  
of distal  
hindlimb bones