



Figure S4 **Bone histology of humeri in sampled birds stained to highlight cement lines.**

Sections stained with toluidine blue reveal arrest lines and canals of secondary osteons, which were excluded from analysis. Representative views are from the caudal octant of (A) *Phalaenoptilus nuttallii*, (B) *Nothura darwinii*, (C) *Crypturellus boucardi*, (D) *Crypturellus cinnamomeus*, (E) *Columba livia*, (F) *Nothoprocta cinerascens*, (G) *Nothocercus nigrocapillus*, (H) *Eudromia elegans*, and (I) *Tinamus major*. Periosteal surface points up in each panel. Scale bar equals (A) 200 μm , (B & G) 480 μm , (C, D, F, & I) 600 μm , (E) 400 μm , and (H) 800 μm . Digital slides are available at <http://paleohistology.appspot.com>.