

**Supplementary 3D File.** Three-dimensional orientable view of the large and medium-sized neurovascular canals and main bone cavities (red) within the premaxilla (pink) of *Omorhamphus storchii* (juvenile) YPM 13106. The canals are rostro-caudally elongate. The larger openings on the dorsal surface (situated caudally) approach the same size as the large, ventral openings paralleling the beak tomia, which were previously confounded with possible tooth alveoli. The large ventral canals merge with one-another and the main cavities just beneath the outer surface of the bone. The large dorsally-opening canals also merge just beneath the bone surface, thus each individual canal is therefore very short. On the left and right sides, respectively, the large ventral canals communicate with each side's main cavity and then with large dorsally-opening canals. Smaller canals diverge from this system and open laterally.