

Supplementary Online Material (SOM):

New observations of the nasal fossa and interorbital region of *Shoshonius cooperi* based on microcomputerized tomography

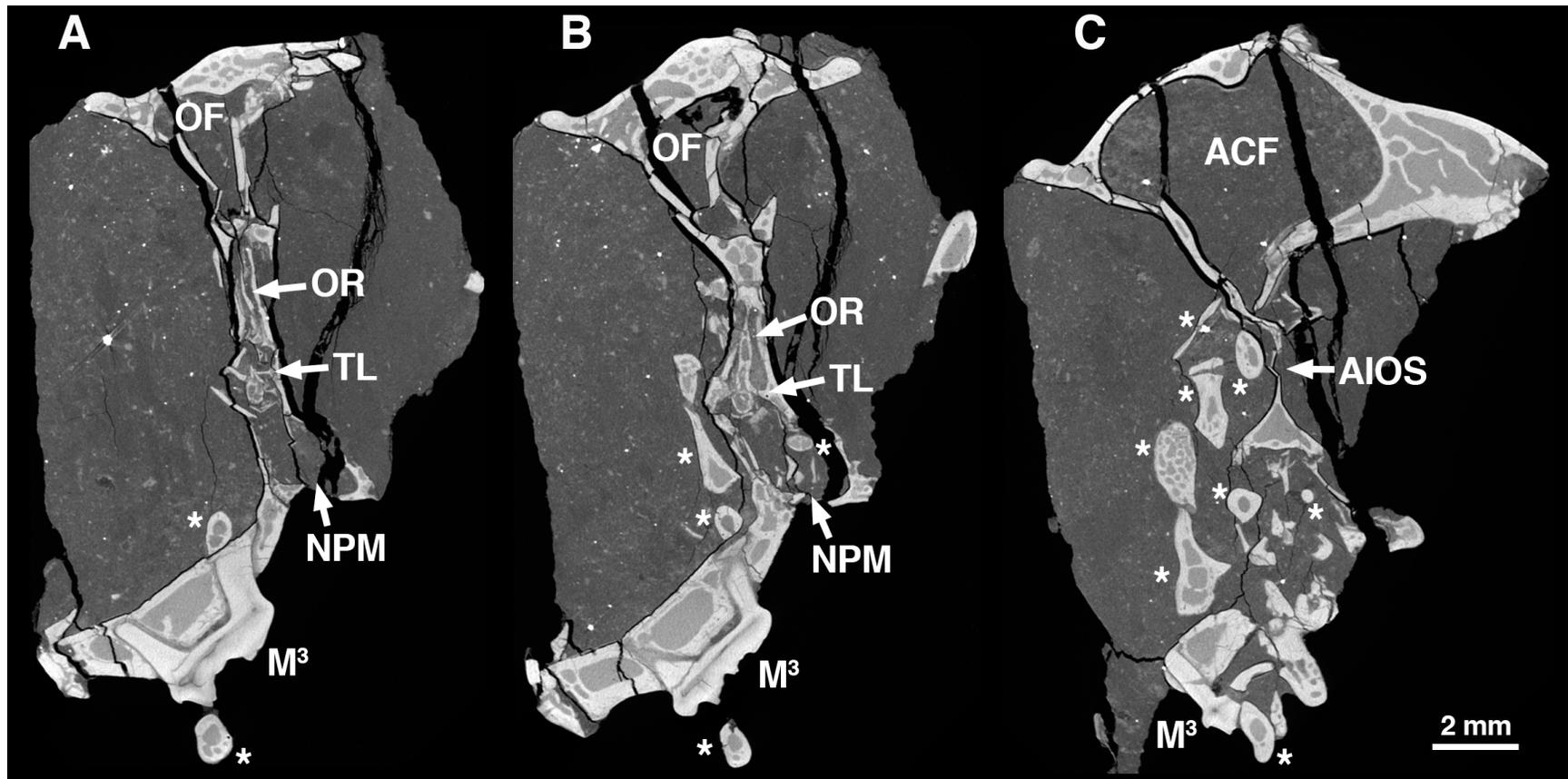
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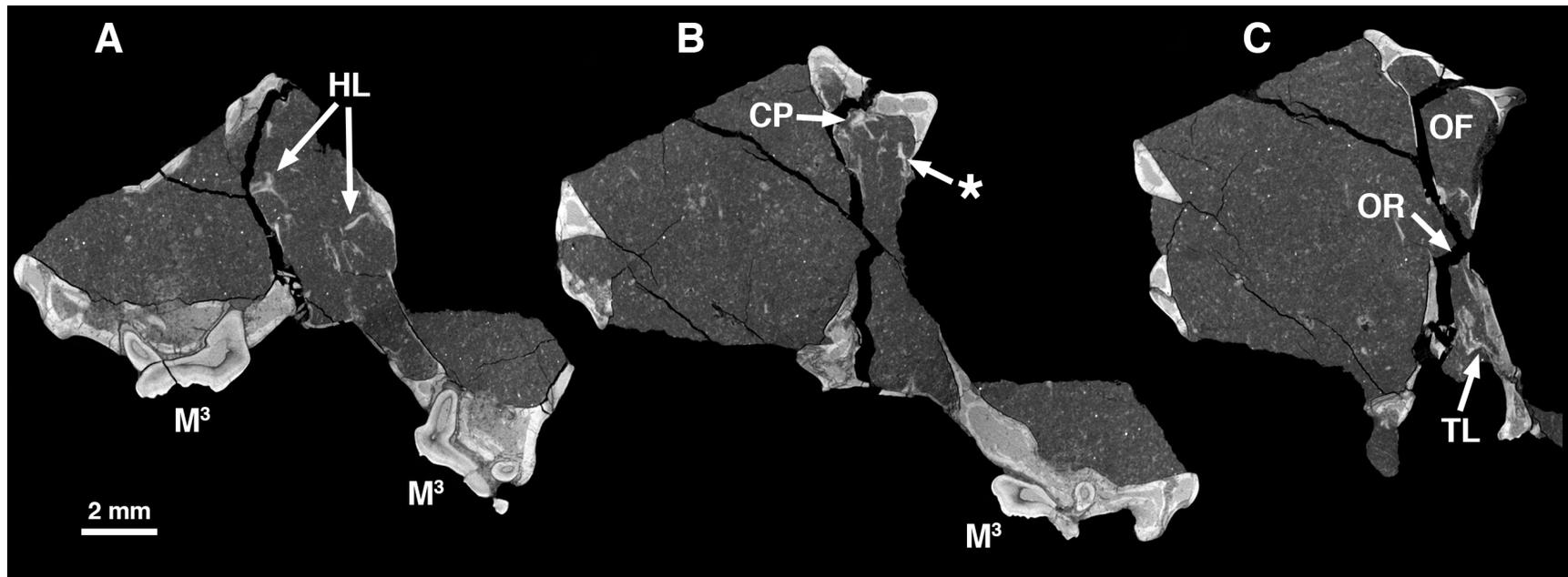
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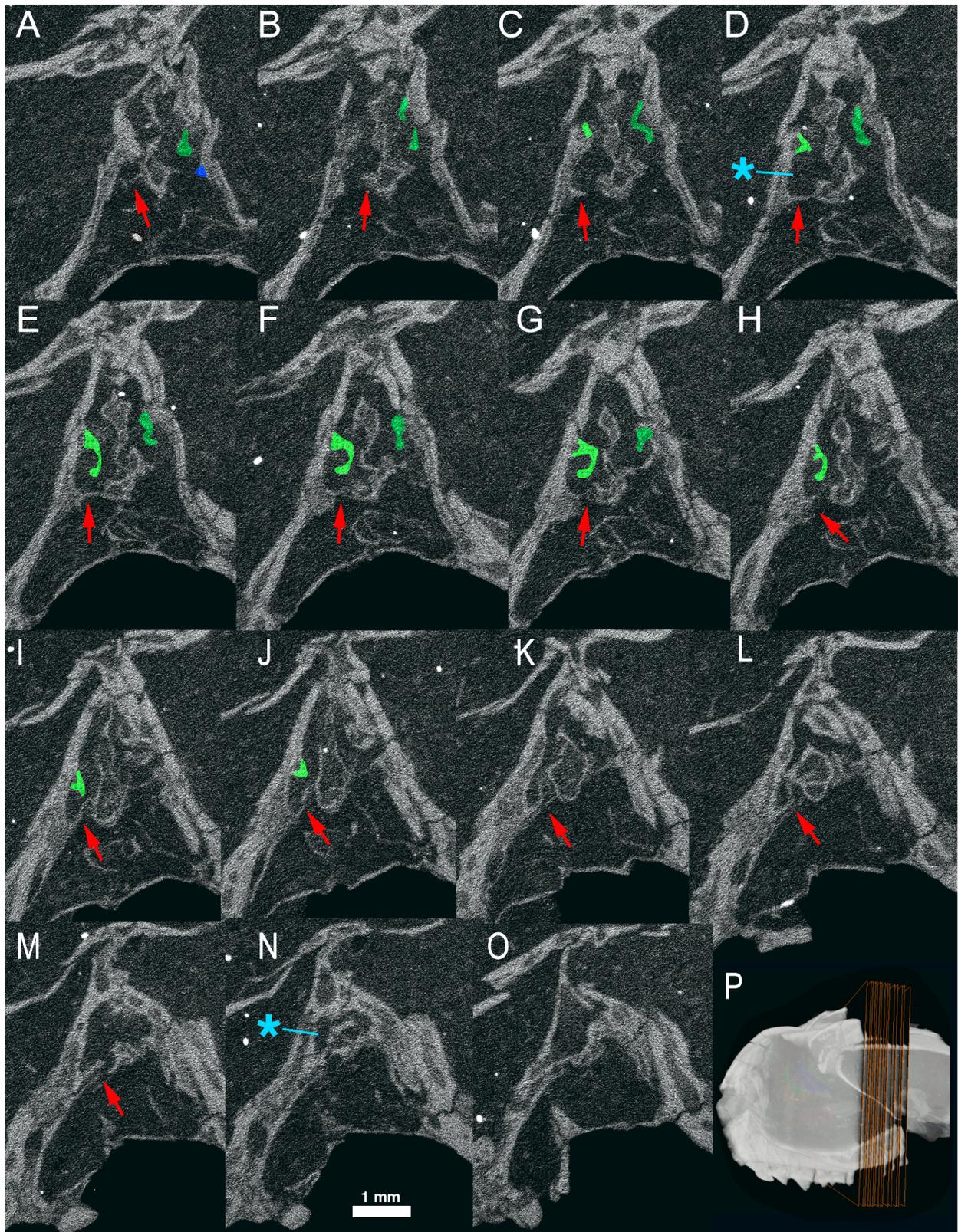
E-mail address: eckirk@austin.utexas.edu (E.C. Kirk).



SOM Figure S1. Successive coronal slices through *Shoshonius cooperi* specimen CM 31367. Slices shown (from left) are: A) 641; B) 697; C) 837. The scan of the cranium (<https://doi.org/10.17602/M2/M98559>) is available for download at <https://www.morphosource.org/>. Abbreviations: OF = olfactory fossa; OR = olfactory recess; TL = transverse lamina; NPM = nasopharyngeal meatus; ACF= anterior cranial fossa; AIOS = apical interorbital septum; M³ = maxillary third molar. Postcranial elements associated with this specimen (to be described elsewhere) are indicated by asterisks.



SOM Figure S2. Successive coronal slices through *Shoshonius cooperi* specimen CM 60494. Slices shown (from left) are: 427, 612, 733. The full scan (<https://doi.org/10.17602/M2/M65222>) is available for download at <https://www.morphosource.org/>. Abbreviations: HL = horizontal lamina (basal lamina of ethmoturbinal I); CP = cribriform plate; OF = olfactory fossa; OR = olfactory recess; TL = transverse lamina; M³ = maxillary third molar. An asterisk marks the point at which the basal lamina of an olfactory turbinal makes direct contact with the cribriform plate.



SOM Figure S3. Successive coronal slices through the olfactory recess of *Shoshonius cooperi* specimen CM 31366. Slices shown are: A) 795; B) 765; C) 752; D) 732; E) 718; F) 699; G) 686;

H) 662; I) 643; J) 630; K) 593; L) 570; M) 535; N) 519; O) 475. The full scan (<https://doi.org/10.17602/M2/M56827>) is available for download at <https://www.morphosource.org/>. The transverse lamina flooring the left side of the olfactory recess is indicated by red arrows. Note that the full anteroposterior length of the olfactory recess is unknown because anterior margin of the transverse lamina is fragmented (A–C). The anterior-most cross section through the left olfactory recess in which this space is floored by a visibly intact transverse lamina is indicated by a blue asterisk in D. The posterior-most margin of the left olfactory recess is indicated by a blue asterisk in N. Although the left transverse lamina is crushed and deformed to varying degrees in the intervening slices, the left olfactory recess appears to have been floored by the transverse lamina along this entire length between D and N. Right ethmoturbinal III (dark blue) is visible in A, and right ethmoturbinal IV (darker green) is visible in A–G. The posterior end of the preserved portion of right ethmoturbinal IV is clearly situated dorsal to the intact right transverse lamina in G, and is thus located within the right olfactory recess. Left ethmoturbinal IV (lighter green) is visible in C–J. Note that the preserved portion of left ethmoturbinal IV is located dorsal to the left transverse lamina, within the left olfactory recess.

SOM Table S1

MorphoSource (<https://www.morphosource.org/>) files used in this analysis.

Taxon	Specimen	DOI
<i>Shoshonius cooperi</i>	CM 31366	full cranium: https://doi.org/10.17602/M2/M56153 rostrum: https://doi.org/10.17602/M2/M56827
<i>Shoshonius cooperi</i>	CM 31367	https://doi.org/10.17602/M2/M98559 https://doi.org/10.17602/M2/M65185
<i>Shoshonius cooperi</i>	CM 60493	https://doi.org/10.17602/M2/M56192
<i>Shoshonius cooperi</i>	CM 60494	https://doi.org/10.17602/M2/M65222
<i>Cephalopachus bancanus</i>	USNM 317189	https://doi.org/10.17602/M2/M11046
<i>Tarsius tarsier</i>	USNM 200279	https://doi.org/10.17602/M2/M10955
<i>Leontopithecus rosalia</i>	AMNH 235274	https://doi.org/10.17602/M2/M34207
<i>Saguinus fuscicollis</i>	MCZ 15324	https://doi.org/10.17602/M2/M4501
<i>Saimiri oerstedii</i>	MCZ 10131	https://doi.org/10.17602/M2/M4490
<i>Galago zanzibaricus</i>	MCZ 38912	https://doi.org/10.17602/M2/M2701
<i>Loris tardigradus</i>	BAA 0006	https://doi.org/10.17602/M2/M1868
<i>Microcebus murinus</i>	AMNH 185621	https://doi.org/10.17602/M2/M16185

Abbreviations: AMNH = American Museum of Natural History; BAA = Duke University Department of Evolutionary Anthropology; CM = Carnegie Museum of Natural History; MCZ = Harvard University Museum of Comparative Zoology; USNM = United States National Museum of Natural History