**Appendix 1**



**Figure S1**. Plaster reconstruction of the skull of *Sebecus* *icaeorhinus* (MMP 235) that includes the original specimen MMP 235 in different view. Up-left, skull in occipital view; up-right, skull in lateral view; down-left, ventral view; down-right, dorsal view. Scale bar = 10 cm.



**Figure S2**. Serial horizontal slices through the skull of the MMP 235 specimen of Sebecus icaeorhinus. The upper left panel (**1**) shown the three-dimensional reconstruction that indicated the position of each sagittal slice (**2**–**5**) along the horizontal axis of the skull. Abbreviations: appl, anterior process of palatine; appt, anterior process of the pterygoid; cac, carotid canal; ecpt, ectopterygoid; VI, foramen of the abducens nerve; pl, palatine; phs, pharyngeal sinus; pcpt, pneumatic cavities into the pterygoid; ppp, posterior process of the palatine; pppt, posterior process of the pterygoid; ppts, palatine-ptrerygoid suture; tr, teeth root. Images not to scale.



**Figure S3**. Serial sagittal slices through the skull of the MMP 235 specimen of Sebecus icaeorhinus. The upper left panel (1) shown the three-dimensional reconstruction that indicated the position of each sagittal slice (2–5) along the horizontal axis of the skull. Abbreviations: appt, anterior process of the pterygoid; aspp, ascending process of the palatine; cac, carotid canal; ecpt, ectopterygoid; VI, foramen of the abducens nerve; mx, maxilla; phs, pharyngeal sinus; pcpt, pneumatic cavities into the pterygoid; ppe, posterior process of the ectopterygoid; pppt, posterior process of the pterygoid. Images not to scale.

**Figure** **S4**. Tridimensional model of the mandible of *Sebecus* *icaeorhinus* (MMP 235) in dorsal (above) and lateral view (down). Abbreviation: an, angular; dt, dentary; dth, denary tooth; ms, mandibular symphysis; sa, surangular; sp, splenial. Scale bar = 2 cm.