**Appendix 2**

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| --- | --- | --- | --- |
| **Table S1**. Results of nine algorithms (according to the majority rule). | | | |
| PCA | No. | SV | Cum |
| 1 | 0.76411 | 40.12% | 40.12% |
| 2 | 0.61936 | 26.36% | 66.49% |
| 3 | 0.38873 | 10.38% | 76.87% |
| 4 | 0.29850 | 6.12% | 83.00% |
| 5 | 0.27538 | 5.21% | 88.21% |
| 6 | 0.26256 | 4.74% | 92.94% |
| 7 | 0.19293 | 2.56% | 95.50% |
| 8 | 0.16491 | 1.87% | 97.37% |
| 9 | 0.10272 | 0.73% | 98.10% |
| 10 | 0.09736 | 0.65% | 98.75% |
| 11 | 0.08284 | 0.47% | 99.22% |
| 12 | 0.06009 | 0.25% | 99.47% |
| 13 | 0.05055 | 0.18% | 99.64% |
| 14 | 0.04184 | 0.12% | 99.76% |
| 15 | 0.03750 | 0.10% | 99.86% |
| 16 | 0.03113 | 0.07% | 99.93% |
| 17 | 0.02613 | 0.05% | 99.97% |
| 18 | 0.01512 | 0.02% | 99.99% |
| 19 | 0.01225 | 0.01% | 100.00% |



**Figure S5**. Result of the geometric morphometric analysis: first three axes of the linear discriminant analysis (LDA) of the ventral surface of the palatine in notosuchians and the location of representatives of different clades of Notosuchia.