**Table S2.** Skull measurement of a male topotype of *Mazama simplicicornis argentina* Lönnberg, 1919, and other neotropical cervids

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ID** | TL | CBL | BL | SSL | PP | VCL | GLN | SLFL | OPL | LLP | LCR | LMR | LPR | GILO | GIHO | GMB | GBOC | GBBP | GBFM | LFB | GBAO | LBBO | ZB | GBAN | GBAP | BHPSN |
| T450 Topotype | 181.02 | 173.73 | 157.98 | 103.63 | 52.44 | 79.05 | 49.73 | 95.30 | 71.65 | 45.16 | 59.42 | 35.24 | 29.15 | 30.66 | 29.93 | 59.72 | 37.42 | 46.71 | 13.91 | 58.94 | 66.21 | 52.44 | 81.99 | 14.86 | 22.58 | 52.18 |
| NRM-MA 620394 Holotype |  | 172.99 | 162.14 | 107.53 | 54.93 | 79.55 | 44.39 | 96.69 | 75.01 | 45.44 | 54.93 | 32.15 | 24.62 | 32.39 | 32.78 | 58.12 | 36.11 | 54.2 | 18.32 | 53.22 | 57.27 | 42.37 | 79.67 | 20.14 | 23.51 | 55.94 |
| T377\_Sgo  Neotype | 165.91 | 157.14 | 147.02 | 102.44 | 46.25 | 75.68 | 44.20 | 87.65 | 66.62 | 41.30 | 43.13 | 26.86 | 27.02 | 28.46 | 26.55 | 55.98 | 33.15 | 37.99 | 14.37 | 43.87 | 54.29 | 40.49 | 73.67 | 15.90 | 20.83 | 52.18 |
| T389\_Sgo | 160.52 | 152.91 | 141.39 | 82.58 | 56.38 | 77.68 | 49.93 | 84.65 | 80.71 | 47.99 | 54.77 | 31.72 | 24.56 | 30.38 | 29.02 | 53.66 | 36.77 | 50.19 | 13.58 | 48.12 | 73.78 | 41.16 | 75.96 | 21.02 | 24.10 | 54.09 |
| T273\_Sgo | 171.25 | 165.57 | 152.60 | 100.93 | 50.13 | 76.63 | 45.72 | 79.88 | 80.93 | 41.09 |  |  |  | 30.95 | 29.47 | 71.18 | 32.63 | 51.59 | 15.62 | 44.00 | 60.51 | 43.29 | 69.51 | 17.11 | 22.04 | 59.25 |
| T372\_Sgo | 178.50 | 175.66 | 155.86 | 94.49 | 56.44 | 85.17 | 54.01 | 88.91 | 76.67 | 45.73 | 57.35 | 32.69 | 26.25 | 28.65 | 29.25 | 53.18 | 34.43 | 49.66 | 15.85 | 43.70 | 64.25 | 46.08 | 75.38 | 19.65 | 20.39 | 60.95 |
| T354\_Sgo | 163.67 | 155.12 | 140.90 | 94.27 | 49.60 | 67.59 | 43.50 | 62.52 | 66.53 | 38.91 | 46.34 | 25.56 | 21.92 | 33.18 | 27.36 | 52.98 | 29.50 | 45.79 | 13.20 | 46.76 | 53.78 | 43.29 | 67.59 | 18.03 | 17.01 | 48.63 |
| T352\_Sgo | 180.75 | 172.76 | 155.10 | 106.50 | 51.35 | 83.74 | 29.80 | 29.85 | 66.98 | 33.02 | 44.70 | 14.15 | 33.22 | 34.13 | 63.94 | 47.02 | 73.79 | 19.62 | 20.14 | 45.18 | 59.05 | 48.12 | 68.29 | 19.89 | 18.25 | 47.78 |
| T405\_Sgo | 181,00 | 175.22 | 150.2 | 100.22 | 50.17 | 74.59 | 54.78 | 75.28 | 76.4 | 41.2 | 47.29 | 28.54 | 24.51 | 30.52 | 33.63 | 66.74 | 28.56 | 45.1 | 17.34 | 43.61 | 63.35 | 44.13 | 67.02 | 20.01 | 18.18 | 45.62 |
| 347B\_Sgo | 177.90 | 170.04 | 157.18 | 104.88 | 55.01 | 78.59 | 51.38 | 88.12 | 71.12 | 41.05 | 51.03 | 27.57 | 22.53 | 26.78 | 28.59 | 52.60 | 32.37 | 46.89 | 15.03 | 50.83 | 62.73 | 43.72 | 74.00 | 17.39 | 20.50 | 51.81 |
| T403\_Sgo | 180.68 | 172.86 | 154.24 | 99.92 | 55.21 | 77.07 | 47.88 | 90.05 | 76.05 | 40.91 | 51.61 | 27.90 | 22.46 | 28.91 | 28.90 | 58.91 | 35.67 | 53.22 | 15.62 | 62.79 | 70.19 | 48.22 | 79.58 | 21.96 | 23.60 | 50.93 |
| T323\_Sgo | 176.02 | 162.93 | 142.31 | 103.33 | 54.02 | 75.03 | 41.57 | 89.07 | 73.65 | 39.91 | 40.19 | 26.57 | 22.9 | 29.51 | 30.51 | 58.69 | 35.04 | 47.42 | 19.14 | 43.80 | 70.09 | 46.52 | 78.09 | 18.02 | 22.03 | 53.02 |
| T295\_Mne | 175.63 | 171.01 | 155.66 | 103.42 | 49.80 | 83.94 | 48.71 | 85.28 | 75.63 | 37.31 | 56.90 | 32.96 | 26.65 | 32.97 | 33.62 | 56.55 | 32.38 | 51.47 | 16.65 | 58.06 | 72.27 | 52.09 | 76.57 | 21.60 | 23.48 | 81.71 |
| Catfap4\_Mne | 178.55 | 173.37 | 155.97 | 101.31 | 55.39 | 83.22 | 50.60 | 89.43 | 76.15 | 44.61 | 52.09 | 29.27 | 24.68 | 32.56 | 32.20 | 57.56 | 30.83 | 47.93 | 15.16 | 57.06 | 63.87 | 49.78 | 76.45 | 19.85 | 21.75 | 76.44 |
| T263\_Mne | 168.21 | 158.80 | 145.93 | 100.21 | 51.39 | 73.33 |  | 83.60 | 75.69 | 37.32 | 45.12 | 25.48 | 23.79 | 30.88 | 32.51 | 67.42 | 32.49 | 48.64 | 14.37 | 43.08 | 61.68 | 49.57 | 77.14 |  | 21.24 | 48.14 |
| T371\_Mne | 171.07 | 165.22 | 149.92 | 100.62 | 50.17 | 79.59 | 51.78 | 78.28 | 78.40 | 42.30 | 48.29 | 27.54 | 20.81 | 30.50 | 31.63 | 64.73 | 29.56 | 43.10 | 15.34 | 42.61 | 64.37 | 45.16 | 68.03 | 20.83 | 17.82 | 49.62 |
| T358\_Mam  Neotype | 223.19 | 222.99 | 197.33 | 137.02 | 61.87 | 119.03 | 71.00 | 116.10 | 99.14 | 61.17 | 68.87 | 37.77 | 30.16 | 30.22 | 37.31 | 66.28 | 41.46 | 60.14 | 18.18 | 66.65 | 84.59 | 46.16 | 100.97 | 21.35 | 28.10 | 70.44 |
| T274\_Mam | 220.74 | 219.45 | 187.43 | 121.52 | 68.13 | 104.72 | 65.07 | 116.10 | 102.61 | 61.17 | 63.42 | 34.39 | 30.86 | 31.44 | 39.67 | 69.32 | 37.92 | 57.62 | 18.73 | 68.34 | 80.93 | 57.12 | 97.93 | 23.06 | 27.67 | 61.27 |
| T260\_Mam | 205.90 | 210.68 | 187.21 | 122.07 | 63.91 | 104.22 | 60.63 | 101.07 | 98.18 | 58.23 | 54.29 | 32.8 | 26.77 | 32.75 | 36.07 | 67.34 | 43.91 | 59.29 | 15.96 | 63.9 | 81.53 | 51.89 | 87.46 | 20.36 | 24.05 | 60.89 |
| T251\_Mam | 210.53 | 209.02 | 189.66 | 125.24 | 66.41 | 104.62 | 66.18 | 111.23 | 87.92 | 59.10 | 65.40 | 38.23 | 30.34 | 35.36 | 36.12 | 64.33 | 41.92 | 62.12 | 19.53 | 68.98 | 82.65 | 54.92 | 91.78 | 17.44 | 22.61 | 60.79 |
| T385\_Mru  Neotype | 200.63 | 199.37 | 184.46 | 122.72 | 62.39 | 97.64 | 69.19 | 106.88 | 121.87 | 51.33 | 63.2 | 32.17 | 28.73 | 33.58 | 32.55 | 64.91 | 41.55 | 55.6 | 20.54 | 56.6 | 71.82 | 54.22 | 88.9 | 22.94 | 25.47 | 61.02 |

*M. nemorivaga* – Mne; *S. gouazoubira* – Sgo; *M. rufa* – Mru; *M. americana* – Mam; TL= total length, CBL= condylobasal length, BL= basal length, SSL= short skull length, PP= premolar 1 – prosthion, VCL= viscerocranium length, GLN= greatest length of the nasals, SLFL= short lateral facial length, OPL= oral palatal length, LLP= lateral length of the premaxilla, LCR= length of the cheektooth row, LMR= length of the molar row, LPR= length of the premolar row, GILO= greatest inner length of the orbit, GIHO= greatest inner height of the orbit, GMB= greatest mastoid breadth, GBOC= greatest breadth of the occipital condyles, GBBP= greatest breadth at the bases of the paraoccipital, GBFM= greatest breadth of the foramen magnum , LFB= Least frontal breadth, GBAO= greatest breadth across the orbits, LBBO= least breadth between the orbits, ZB= zygomatic breadth, GBAN= greatest breadth across the nasals, GBAP= greatest breadth across the premaxillae, BHPSN= Basion – The highest point of the superior nuchal crest.