Supplemental Material:

 Year, age, sex and bill measurements of the Chinstrap penguins in this study.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Year | Age | Sex | Bill depth | Commissure width | Bill length | Flipper length |
|   |   |   | (mm) | (mm) | (mm) | (mm) |
| 2011 | Adult | Male | 19.3 | 33.6 | 51.8 | 201.5 |
| 2011 | Adult | Male | 27.2 | 32 | 51.6 | 194.5 |
| 2011 | Adult | Male | 19.8 | 35.5 | 52.5 | 189.5 |
| 2011 | Adult | Male | 23.2 | 40.4 | 51.6 | 190 |
| 2011 | Adult | Male | 21.2 | 34.2 | 50.5 | 197 |
| 2011 | Adult | Male | 22.2 | 30.1 | 53.4 | 202 |
| 2011 | Adult | Male | 20.9 | 33 | 50.5 | 195 |
| 2011 | Adult | Male | 20.3 | 33.4 | 49 | 190 |
| 2011 | Adult | Male | 20.5 | 30.5 | 50 | 199.5 |
| 2011 | Adult | Male | 20 | 34.4 | 49.3 | 185 |
| 2011 | Adult | Male | 21.6 | 33.7 | 46.6 | 193 |
| 2011 | Adult | Male | 20.8 | 34.4 | 47 | 193 |
| 2011 | Adult | Female | 19.2 | 27.6 | 47.2 | 190.5 |
| 2011 | Adult | Female | 20.4 | 31.6 | 44.2 | 185 |
| 2011 | Adult | Female | 20 | 28.3 | 49.6 | 195 |
| 2011 | Adult | Female | 20.5 | 33.3 | 47.3 | 186 |
| 2011 | Adult | Female | 19 | 32.6 | 44.4 | 182 |
| 2011 | Adult | Female | 17.2 | 32.8 | 44.4 | 183.5 |
| 2011 | Adult | Female | 19.1 | 36 | 43.3 | 191.5 |
| 2012 | Adult | Male | 24.8 | 30.5 | 47.5 | 186 |
| 2012 | Adult | Male | 24 | 30 | 48.6 | 196.5 |
| 2012 | Adult | Male | 24 | 30.6 | 51 | 193.5 |
| 2012 | Adult | Male | 20.4 | 27.7 | 47 | 202.5 |
| 2012 | Adult | Male | 21 | 29.6 | 47 | 191.5 |
| 2012 | Adult | Male | Don´t have | 31 | 54 | 189.5 |
| 2012 | Adult | Male | Don´t have | 39.8 | 50 | 198 |
| 2012 | Adult | Female | 19.5 | 27.2 | 49.4 | 190 |
| 2012 | Adult | Female | 19 | 27 | 43.4 | 191.5 |
| 2012 | Adult | Female | 22.5 | 32 | 50 | 204 |
| 2012 | Adult | Female | 21.3 | 29.3 | 49.7 | 200 |
| 2012 | Adult | Female | 22.2 | 30.6 | 50.4 | 185.5 |
| 2012 | Adult | Female | 21.3 | 26.6 | 42 | 188 |
| 2012 | Adult | Female | 19.7 | 28 | 50.5 | 200 |
| 2012 | Adult | Female | Don´t have | 26.3 | 45.4 | 193 |
| 2012 | Adult | Female | Don´t have | 28 | 49.3 | 192.5 |