**Table S1. Sample sizes for the studied extinct species.**

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| --- | --- | --- | --- |
| **Taxon** | **Locality** | **Age (Ma)** | **N** |
| *Pierolapithecus catalaunicus* | Abocador de Can Mata/Barran de Can Vila 1 | 11.93 | 1 |
| *Anoiapithecus brevirostris* | Abocador de Can Mata/C1-E\* | 12.3–12.2 | 1 |
| *Anoiapithecus brevirostris* | Abocador de Can Mata/C3-Aj | 11.94 | 2 |
| *Anoiapithecus brevirostris* | average | 12.3–11.94 | 3 |
| *Driopithecus fontani* | Abocador de Can Mata/C3-Ae | 11.85 | 1 |
| *Hispanopithecus crusafonti* | Teuleria del Firal | 10.4–10.0 | 1 |
| *Hispanopithecus crusafonti*  | Can Poncic 1 | 10.4–10.0 | 4 |
| *Hispanopithecus crusafonti* | average | 10.4–10.0 | 5 |
| *Hispanopithecus laietanus*  | Can Feu | 10.0–9.7 | 1 |
| *Hispanopithecus laietanus*  | Can Llobateres 1 | 9.72 | 4 |
| *Hispanopithecus laietanus* | average | 10.0–9.7 | 5 |
| *Gripopithecus alpani***1** | Paşalar | 14.9–13.7 | 18 |
| *Hispanopithecus hungaricus***1** | Rudabánya | 10.0–9.8 | 2 |
| *Oreopithecus bambolii***1** | Baccinello, Monte Bamboli, Ribolla | 8.3–6.7 | 9 |
| *Ouranopithecus macedoniensis***1** | Ravin de la Pluie, Xirochori, Nikiti | 9.7–9.0 | 7 |

Abbreviations: Ma, million years ago; N, sample size.

**1** Data taken from refs. [10, 12].