

Osteometric Database of South American Camelids: field definitions and instructions for submitting data

An initiative of the ICAZ Neotropical Zoarchaeology Working Group (NZWG-ICAZ)

Project site: <https://opencontext.org/projects/40-osteometric-database-of-south-american-camelids>

Database Template: <https://opencontext.org/media/43eedacb-5e71-4902-ac4a-c50147d10632>

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GENERAL NOTES

Please **touch a cell** to learn what **information** is required in each field: a note will pop up; more detailed information is provided below in this document.

Fields highlighted in **yellow** are **mandatory**. Anyway we encourage you to include as much data as possible, as this will allow a stronger database.

Whenever information is **not available or not applicable**, please state "**N/A**" rather than leaving the cell blank.

Some information (in grey fonts and marked with an **asterisk: ***) is just for the Database editors' use and **not to be displayed to the public**.

Each **skeletal element**, as well as each **individual** in the case of modern specimens, should have a **unique code** identifying it, be it from the original collection or *ad hoc* for this database –see below.

In order to be able to **filter the data** in the columns, select the options in row 5.

Note that we will be working on how to digitize data for this project, so if you have **type-written or hand-written data** that you would like to include, please contact us at BDOC.ODSAC@gmail.com.

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FIELDS (mandatory fields highlighted):

1. Type of specimen (pick up an option from the drop-down list. If you select "other/unknown", please TYPE here the corresponding information):

- 1.1. modern wild individual
- 1.2. modern domestic individual
- 1.3. modern captive individual (i.e., from zoo)
- 1.4. other/unknown (please specify):

2. Provenience:

- 2.1. locality (if unknown, just state N/A)
- 2.2. province or state (if unknown, just state N/A)
- 2.3. country (if unknown, just state N/A)
- 2.4. other (any extra provenience information may be provided here)
- 2.5. geographical coordinates (lat / lon, after the standard used by Google Maps; if precise site location is not possible, provide a broad approximate and indicate "approx.")
- 2.6. provenience of modern specimens
 - 2.6.1. setting (pick up an option from the drop-down list; if you select "other/unknown", please TYPE here the corresponding information):
 - 2.6.1.1. wild in captivity (e.g., zoo)
 - 2.6.1.2. domestic in captivity (e.g., zoo)
 - 2.6.1.3. wild free-ranging
 - 2.6.1.4. domestic free-ranging (e.g., herd)
 - 2.6.1.5. domestic feral
 - 2.6.1.6. other/unknown (please specify):
 - 2.6.2. type (e.g., zoo, pastoralist community, reserve)
 - 2.6.3. name (of the zoo, reserve, etc.)
 - 2.6.4. date (year or decade of collection)

3. Repository:

- 3.1. name (institution where the specimen is deposited; please provide detailed information; if it is not in an institution, please clarify)
- 3.2. location (indicate city, state/province, and country)
- 3.3. web page
- 3.4. contact information* (email and/or other contact information) (*not to be shown, just for editors' use)

4. **Camelid individual identification code** (modern individuals only):

4.1. individual code (if it has no code, please name each individual after the institution/project code plus successive numbers -e.g., LaZTA1, LaZTA2, and so on- even if they only have one single measurable bone. THIS CODE IS TO BE REPEATED IN EVERY SPECIMEN OF THE INDIVIDUAL.)

4.2. alternative code/s (in case more than code has been assigned to the individual, please include ALL alternative or previously-assigned identifiers here, such as GenBank codes and old museum labels; otherwise just state: N/A)

4.3. extra information (if the code system/s does not correspond to the institution, or any extra information is necessary, please clarify)

5. **Skeletal element identification code:**

5.1. element code (if it has no code, please name each skeletal element after the camelid individual code plus successive numbers -e.g., LaZTA1.1, LaZTA1.2, and so on; THIS CODE IS TO BE REPEATED IN EVERY MEASUREMENT OF THE ELEMENT)

5.2. alternative code/s (in case more than code has been assigned to the element, please include ALL alternative or previously-assigned identifiers here.)

5.3. extra information (if the code system/s does not correspond to the institution, or any extra information is necessary, please clarify)

6. **Taxon identification *independent of osteometry*:**

6.1. scientific name (pick up an option from drop-down list; only identifications INDEPENDENT of osteometry to be included; if no identification was made INDEPENDENT of osteometry, please select: N/A):

6.1.1. *Lama glama*

6.1.2. *Vicugna pacos*

6.1.3. *Lama guanicoe*

6.1.4. *Vicugna vicugna*

6.1.5. *Lama* sp.

6.1.6. *Vicugna* sp.

6.1.7. N/A

6.2. synonyms (if ID was originally provided with another scientific name/s -different from the previous list-, please enter them here; only identifications INDEPENDENT of osteometry to be included)

6.3. identification method/s (e.g., DNA, ZooMS, fur, morphology of lower incisors; if ID was provided by the institution without clarifying the method, state: N/A)

6.4. common name (pick up an option from the drop-down list):

6.4.1. llama

6.4.2. alpaca

6.4.3. guanaco

6.4.4. vicuña

6.4.5. N/A

6.5. subspecies or type (e.g., *Lama guanicoe cacsilensis*, chaku llama; if not known or not applicable, please state: N/A)

7. Age and sex of the *individual*

7.1. maturity

7.1.1. age (describe age, age range in months, and/or age class, e.g., >6 months)

7.1.2. criteria / sources (provide the criteria used (e.g., bone fusion, tooth eruption/wear) and bibliographic sources for age (class) attribution)

7.2. sex

7.2.1. sex (pick up an option from the drop-down list):

7.2.1.1. female

7.2.1.2. male

7.2.1.3. N/A

7.2.2. criteria / sources (provide the criteria and/or source/s used for determination, if applicable)

8. Element identification:

8.1. Element, after NAV (pick up an option from drop-down list, based on the *Nomina Anatomica Veterinaria* (6th ed.):

8.1.1. Cranium

8.1.2. Mandibula

8.1.3. Atlas

8.1.4. Axis

8.1.5. Vertebra cervical

8.1.6. Vertebra thoracica

8.1.7. Vertebrae lumbales

8.1.8. Os sacrum [Vertebrae sacrales]

8.1.9. Vertebra caudal [coccygea]

8.1.10. Costa

8.1.11. Sternum

8.1.12. Scapula

8.1.13. Humerus

8.1.14. Radius

8.1.15. Ulna

8.1.16. Radius-ulna

- 8.1.17. Os carpi radiale [Os scaphoideum]
- 8.1.18. Os carpi intermedium [Os lunatum]
- 8.1.19. Os carpi ulnare [Os triquetrum]
- 8.1.20. Os carpi accessorium [Os pisiforme]
- 8.1.21. Os carpale II [Os trapezoideum]
- 8.1.22. Os carpale III [Os capitatum]
- 8.1.23. Os carpale IV [Os hamatum]
- 8.1.24. Os metacarpale III et IV
- 8.1.25. manus: Phalanx proximalis [Os compedale]
- 8.1.26. manus: Phalanx media [Os coronale]
- 8.1.27. manus: Phalanx distalis [Os unguiculare, Os ungulare]
- 8.1.28. Os coxae
- 8.1.29. Os femoris [Femur]
- 8.1.30. Patella
- 8.1.31. Tibia
- 8.1.32. Talus
- 8.1.33. Calcaneus
- 8.1.34. Lateral malleolus, fibulare
- 8.1.35. Os tarsi centrale [Os naviculare]
- 8.1.36. Os tarsale I [Os cuneiforme mediale]
- 8.1.37. Os tarsale II et III [Os cuneiforme intermediolaterale]
- 8.1.38. Os tarsale IV [Os cuboideum]
- 8.1.39. Ossa metatarsalia I-V
- 8.1.40. pedis: Phalanx proximalis [Os compedale]
- 8.1.41. pedis: Phalanx media [Os coronale]
- 8.1.42. pedis: Phalanx distalis [Os unguiculare, Os ungulare]

8.2. extra information (you may include any extra information on the element ID here, such as vertebra number and name in English/Spanish)

8.3. segment (if element is complete, just state so; otherwise, describe the segment, e.g., proximal end)

8.4. side (pick up an option from the drop-down list):

- 8.4.1. left
- 8.4.2. right
- 8.4.3. N/A

9. **Age and sex of each measured *element*** (note that the general maturity and sex of the individual was provided before)

9.1. maturity

9.1.1. fusion status (state F (fused) or SF (semi-fused) for EACH ossification center; please DO NOT include unfused or incipiently fusing elements in the database)

9.1.2. age (describe age, age range in months, and/or age class)

9.1.3. criteria / sources (bibliographic source for age (class) attribution)

9.2. sex

9.2.1. sex (pick up an option from the drop-down list):

9.2.1.1. female

9.2.1.2. male

9.2.1.3. N/A

9.2.2. criteria / sources (provide the criteria and/or source/s used for determination, if applicable)

10. **Bone condition**

10.1. conditions met (choose YES if and only if these four conditions are met: 1. low weathering (stages 0-1); 2. no signs of burning; 3. no pathologies; 4. no other conditions that may impact on the measurements):

10.1.1. yes

10.1.2. no

10.2. extra information (if some condition/s are not met, please describe)

11. **Osteometric information:**

11.1. measurement

11.1.1. system (pick up an option from drop-down list; only select compilations (e.g., Izeta et al. 2012) for new measurements -not in primary sources-; if you choose "other", please TYPE the reference here (just author/s and year, full reference in Bibliography column)):

11.1.1.1. Driesch (1976)

11.1.1.2. Kent (1982)

11.1.1.3. Mengoni Goñalons & Elkin (2021)

11.1.1.4. L'Heureux (2008)

11.1.1.5. Izeta et al. (2012)

11.1.1.6. other (please specify)

11.1.2. code (measure code/s according to that system)

11.1.3. name (measure name according to that system)

11.1.4. description (if the measurement was taken with some other system or with some variant of Driesch's (1976) or Kent's (1982) definitions, please include a brief description; measure name synonyms may also be included here)

11.1.5. measure in mm (please enter measure, WITH AS MANY DECIMALS AS ORIGINALLY TAKEN, even if only one is shown by default -full range of decimals is kept in the cell even if not visible-)

11.1.6. range (+ / -) (please enter measure range in case it is an average out of several measurements)

11.2. method

11.2.1. instrument (pick up an option from drop-down list; if you choose "other", please TYPE the reference here):

11.2.1.1. manual calliper

11.2.1.2. digital calliper 0.01 precision

11.2.1.3. osteometric board

11.2.1.4. other (please specify):

11.2.2. times (n times the measurement was taken, i.e., 1 or a larger number in case the measure provided is an average)

11.2.3. observers (n observers taking the measurement/s)

11.2.4. error sources (specify if intra- and/or inter-observer variation was analyzed; you may enter further information in the last column)

11.3. unpublished / references (state "unpublished" if the measures have not been published before, or else mention bibliographic source (just author/s and year))

12. Author/s:

12.1. name/s (enter author/s' full name, please follow the format in the examples provided)

12.2. institutional affiliation

12.3. ORCID (author ORCID number; if you do not have one, you can create a unique ORCID identification number at <https://orcid.org>, so that your name can be linked link to your research online)

12.4. email address* (*PLEASE NOTE THIS WILL NOT BE PUBLISHED, IT IS FOR EDITORS ONLY)

12.5. role (the role of each author may be specified, e.g., sample collector, measurer, other)

13. Consent* (*PLEASE NOTE THIS WILL NOT BE PUBLISHED, IT IS FOR EDITORS ONLY)

The author/s of the measurement/s should declare that he/she is the sole responsible author. In case he/she is not who collected the samples and these belong to private collections, laboratories, research projects, etc., a formal consent from those in charge of them should be signed and attached to this submission, where they declare they agree to the publication of these measurements either with or without them as co-authors.

13.1. Have read and agreed to the consent (pick up an option from drop-down list; if you choose "N/A", please TYPE the reason here):

13.1.1. Yes

13.1.2. No

13.1.3. Not applicable (please specify)

14. **Bibliography: references cited and others:** Please add full references of works cited in previous columns. If you have not, you may include up to 5 relevant references (about the site, the faunal assemblage, etc., if any).

15. **Comments:** You may add any information here that you have not been able to include in previous fields.

16. **Additional content*:** Please indicate what additional content you'd like to submit: drawings, photos, distribution maps, etc. Otherwise state: N/A. (*For editors' use only).