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Srivari Illam, No. 61, Karthik Nagar, 10th Street, Saravanampatti, Coimbatore, Tamil Nadu 641035, India
Registered Office: 3A2 Varadarajulu Nagar, FCI Road, Ganapathy, Coimbatore, Tamil Nadu 641006, India
Ph: +91 9385339863 | www.threatenedtaxa.org
Email: sanjay@threatenedtaxa.org

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Cover: Long-tailed Shrike *Lanius schach* resting on a dry branch after courtship. Digital illustration on Procreate. © Aakanksha Komanduri.



Report of phimosis in an Andean Bear *Tremarctos ornatus* (Mammalia: Carnivora: Ursidae) and ultrasonographic description of the male genitourinary system

Aléxia Pimenta Bom-Conselho¹ , Agatha Campinho Belsito² , Arthur Carlos Trindade³ ,
Ciro Alexandre Teixeira Cruvinel⁴ , Pedro Nacib Jorge-Neto⁵ & Cristiane Schilbach Pizzutto⁶

^{1,5,6} Faculty of Veterinary Medicine and Animal Science, University of São Paulo, Av. Prof. Dr. Orlando Marques de Paiva, 87, São Paulo, SP 05508-270, Brazil.

^{1,5,6} Reprocon Institute, Rua Joao Vieira de Meneses, 1064, Campo Grande, MS 79052-280, Brazil.

^{2,3} Veterinary Institute, Federal Rural University of Rio de Janeiro, BR-465, Km 7, Seropédica, RJ 23890-000, Brazil.

^{3,4} Bioparque do Rio, Parque da Quinta da Boa Vista s/n, Rio de Janeiro, RJ 20940-040, Brazil.

⁶ Laboratory of Ecology and Evolution, Instituto Butantan, Av. Dr. Vital Brasil 1500, São Paulo, SP 05503-900, Brazil.

¹ alexiapbc@gmail.com, ² agathacampinho@gmail.com, ³ arthur.trindade@bioparquedorio.com.br, ⁴ ciro.cruvinel@grupocataratas.com, ⁵ pepovet@gmail.com, ⁶ cspizzutto@yahoo.com.br (corresponding author)

Abstract: The Andean Bear is classified as 'Vulnerable' by the IUCN Red List of Threatened Species. Unfortunately, there is still a lack of data on the species' reproduction and reproductive pathologies. General anesthesia was administered to assess the health of a 16-year-old male individual weighing 161 kg, housed in a zoological institution. Anesthesia was induced using ketamine (7 mg/kg; im), butorphanol (0.2 mg/kg; im), midazolam (0.3 mg/kg; im), and dexmedetomidine (0.007 mg/kg; im). It was maintained with 1% isoflurane. During the clinical evaluation, a phimosis condition, secondary to a traumatic injury, was observed for the first time in this species. Ultrasonography of the reproductive system revealed the left testicle measured 3.87 x 2.27 cm and the right testicle measured 3.66 x 2.16 cm. Both testicles exhibited irregular hyperechoic areas. The prostate measured 1.77 x 3.11 cm. The penile urethra measured approximately 0.5 cm, and the penile bone, an elongated structure, measured 4 x 0.8 cm.

Keywords: Accessory glands, animal welfare, captive management, conservation medicine, one conservation, preputial trauma, reproductive pathology, Spectacled Bear, testicular parenchyma.

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Author details: ALÉXIA PIMENTA BOM-CONSELHO, DVM, MSc in Wildlife Reproduction (FMVZ-USP), currently a PhD candidate in Animal Reproduction at the University of São Paulo. Field veterinarian responsible for free-ranging Andean Bear capture operations in Cusco, Peru. Works in clinical practice, reproduction, and management of Andean bears in Brazil and Peru. Member of the Reprocon Institute. AGATHA CAMPINHO BELSITO, DVM with a residency in Diagnostic Imaging (UFRRJ), postgraduate in Computed Tomography (Anclivepa-SP) and Veterinary Radiology (UNIRADIO). Works as an independent practitioner in veterinary ultrasonography, radiology, and computed tomography. ARTHUR CARLOS TRINDADE, DVM, MSc in Veterinary Sciences (UFRRJ), specialized in wildlife medicine and currently pursuing a postgraduate degree in Veterinary Orthopedics. Supervising Veterinarian at BioParque do Rio, with experience in clinical care and management of wild animals in captive settings. CIRO ALEXANDRE TEIXEIRA CRUVINEL, DVM and Technical Manager at the Bioparque do Rio, responsible for overseeing the institution's departments of veterinary medicine, biology, animal behavior and welfare, as well as research and conservation programs. PEDRO NACIB JORGE-NETO, DVM and PhD specializing in animal reproduction. He currently serves as the Technical-Commercial Director for IMV Technologies Brazil and leads the Reprocon Institute. He is also developing the ReproSense ecosystem, integrating AI and deep learning into reproductive biotechnologies for livestock and wildlife conservation. CRISTIANE SCHILBACH PIZZUTTO researcher and technical manager of the Ecology and Evolution Laboratory at the Butantan Institute; Supervisor in the Postgraduate Program in Animal Reproduction at the School of Veterinary Medicine and Animal Science of University of São Paulo.

Author contribution: AP Bom-Conselho: Conceptualization, data curation, formal analysis, investigation, methodology, project administration, resources, writing – original draft, writing – review & editing. AC Belsito: Investigation, writing – original draft; AC Trindade & CAT Cruvinel: Investigation. PN Jorge-Neto: Writing – review & editing; CS Pizzutto: Investigation, methodology, supervision, visualization, writing – review & editing.

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INTRODUCTION

The Andean Bear *Tremarctos ornatus* is a species in the Ursidae family, classified as 'Vulnerable', regarding its risk of global extinction (Velez-Liendo, X. & S. García-Rangel 2017). Endemic to South America (Ruiz-García 2003; Cueva et al. 2018, 2024), the Andean Bear measures approximately 1.5–1.8 m in height, with females weighing up to 60 kg and males up to 140 kg (Hohendorff & Giacomini 2014; Collins 2015). However, these weight ranges may vary in both wild and captive individuals without compromising their health parameters or biochemical evaluations. This species is commonly kept in zoological institutions worldwide, with records dating back to the 19th century (New York N.Y. Board of Commissioners of the Central Park 1867; Gould 1871). There is a lack of information, however, especially regarding reproduction and reproductive pathologies in this species.

Phimosis is a reproductive pathology that typically affects juveniles and, less frequently, adult animals (De Vlaming et al. 2019). Characterized by the inability to expose the penis through the prepuce due to a reduced preputial orifice (Volkman 2023), there are reports of phimosis in various mammalian species, both domestic and wild (Ali et al. 2016; Martel-Arquette & Mans 2016; Kane et al. 2021). However, to date, there are no reports of phimosis in Andean Bears.

Ultrasonography is a highly useful imaging technique for the reproductive evaluation of domestic and exotic animals. Its applications include assessing the reproductive system of males and females, monitoring gestation, confirming reproductive pathologies, tracking ovulation and the estrous cycle in females, and aiding in semen collection, artificial insemination, ovum pick-up, and embryo transfer (Hildebrandt et al. 2000; Pugliesi et al. 2018; Silvatti et al. 2020; Araújo et al. 2022; Gazendam et al. 2023; Requena et al. 2023). This examination has enormous potential for use in zoological institutions and free-ranging animals, not only as a tool for general health assessment but also for the application of reproductive biotechnologies for conservation purposes (Pizzutto et al. 2021). For this, it is essential to understand the normal reproductive system patterns of the Andean Bear.

This study aims to report the first case of phimosis in an Andean Bear and describe the ultrasonographic findings of the genitourinary system in this species.

MATERIALS AND METHODS

The study details the results of clinical assessments conducted by veterinary professionals. These assessments fall under zootechnical practices and, therefore, did not necessitate approval from an animal use ethics committee (MCTIC 2023). Adhering to ethical standards for the assisted reproduction of wild animals (Pizzutto & Jorge-Neto 2023), the treatment and use of experimental animals were in full compliance with Brazilian laws, guidelines, and policies regarding animal welfare.

A 16-year-old male Andean Bear, weighing 161 kg, housed at a zoological institution (Rio de Janeiro, RJ, Brazil; lat. -22.904°, long. -43.229°), underwent an annual medical check-up for health assessment. The animal was fasted for 12 hours before anesthesia. An anesthetic dart gun was used, containing ketamine (7 mg/kg), butorphanol (0.2 mg/kg), midazolam (0.3 mg/kg), and dexmedetomidine (0.007 mg/kg). Anesthesia was maintained with 1% isoflurane.

A complementary examination of the abdominal and pelvic regions was performed using a GE Logiq E R8 ultrasound machine in two-dimensional mode, with high-frequency linear and microconvex multifrequency transducers ranging from 7–13 MHz, to assess the animal's general health and reproductive status. A breeding soundness examination was also performed.

RESULTS

Clinical evaluation revealed a narrowing of the preputial ostium, characterized as phimosis, preventing penile exposure (Image 1A,B). Based on the clinical history, the phimosis was secondary to preputial trauma. Clinical pathology tests showed values within the normal range for the Andean Bear. The animal did not present other clinical abnormalities; however, semen collection was not possible.

On palpation, the testicles were firm, and ultrasonography showed regular contours and symmetrical sizes, measuring 3.87 x 2.27 cm for the left testicle (LT) (Image 2A) and 3.66 x 2.16 cm for the right testicle (RT) (Image 2B). The mediastinum testis was poorly defined, and the parenchyma was hypoechoic and slightly heterogeneous due to the presence of small, irregular hyperechoic areas in both testicles, with the largest measuring 0.35 x 0.18 cm in the left testicle (Image 2C). In the pelvic region, at the topography of the accessory glands, in close contact with the caudal

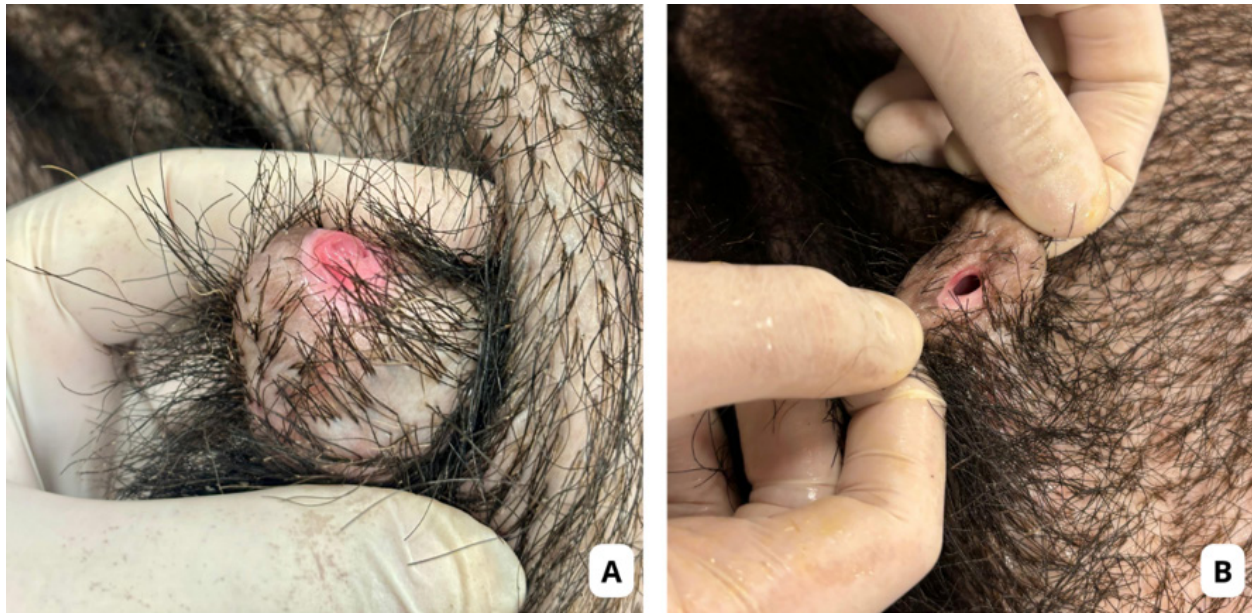


Image 1. A—Phimosis, preventing penile exposure | B—Narrowing of the preputial ostium. © Personal archive of Aléxia P. Bom-Conselho. 2024.

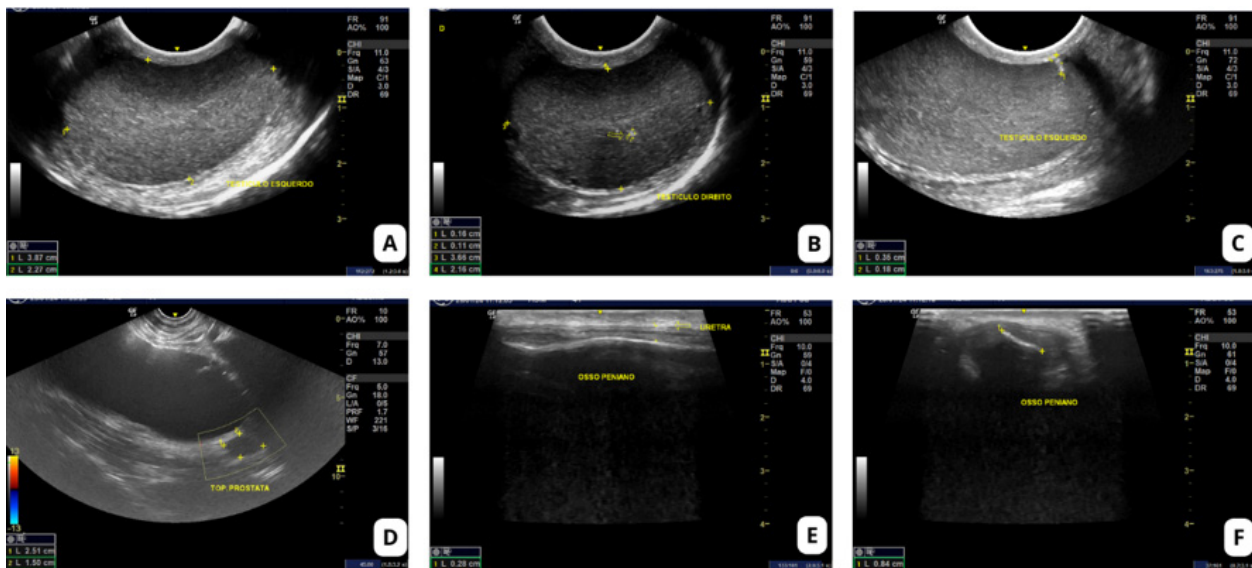


Image 2. A—Left testes | B—Right testes | C—Irregular hyperechoic areas in left testes | D—Prostate topography | E—Penile urethra | F—Penis bone. © Personal archive of Aléxia P. Bom-Conselho. 2024.

bladder wall, a hypoechoic structure with regular contours and an oval shape in the longitudinal section was observed, measuring 1.77 x 3.11 cm (Image 2D). The penile bone (Image 2E,F) is an elongated structure measuring approximately 4.0 x 0.8 cm, it is almost completely inside the gland and has a ventral groove that houses the urethra.

The urinary bladder was filled with anechoic liquid content, with a normoechoic, slightly irregular, and

normothickened wall for the Andean Bear, measuring 0.45 cm. The penile urethra was empty and measured approximately 0.5 cm (Image 2E). The kidneys were symmetrical, measuring 9.41 cm on the left and 9.83 cm on the right, elongated and multilobed, with regular contours and typical architecture. Diffuse echogenic points were observed in the renal parenchyma.

DISCUSSION

Phimosis in adults is reported as secondary to trauma, lacerations, inflammatory processes, scarring, neoplastic conditions, excessive cleaning, licking, and other factors (De Vlaming et al. 2019; Madhesh et al. 2019), leading to inflammation, ostium narrowing, and phimosis. Andean bears have a strong tendency towards stereotypy in captivity (Lima et al. 2022), including excessive masturbation, which, according to the animal's history, possibly caused the lesion leading to the current condition. Despite the phimosis, the animal did not present other clinical abnormalities, such as stranguria, which is common in these cases. The bladder wall irregularity was related to insufficient filling at the time of the examination, as clinical pathology tests were within the normal range for the Andean Bear. Surgical intervention was not performed during the check-up, and clinical follow-up was planned for the following days, without ruling out the possibility of surgery, which is generally recommended for phimosis reversal in small animals.

In ultrasonography, the left testicle measured 3.87 x 2.27 cm and the right 3.66 x 2.16 cm, consistent with the literature, with the left averaging 3.16 x 2.44 cm and the right 3.19 x 2.55 cm (Talavera et al. 2021). As previously reported, the mediastinum testis in the Andean Bear is poorly defined (Talavera et al. 2021). The amorphous hyperechoic points found may be related to fibrosis or dystrophic mineralization, subject to histopathology for confirmation.

The prostate's function is to produce fluids for the first and third fractions of the ejaculate. It is important to know the normal dimensions of the prostate in Andean bear to monitor the animal's health, as affections in the accessory glands, such as hyperplasias, neoplasias, and prostatitis, are common in other mammals, especially humans and dogs, potentially compromising the individual's quality of life and health (Alves et al. 2010; Christensen 2018). For pharmacological semen collection, it is important to know the depth at which the urethral catheter should be inserted to reach the prostate, promoting semen recovery and avoiding urine contamination by reaching the bladder (Jeong et al. 2019; Araújo et al. 2020, 2021; da Silva et al. 2022; Deco-Souza et al. 2024). Ultrasonographic visualization of the urethral probe could confirm the prostate image; however, the individual's phimosis prevented urethral catheterization.

According to the ultrasonographic examination, it is possible that the prostate of Andean bears has an oval

shape in the longitudinal section and is located at the neck of the urinary bladder, surrounding the caudal urethra, similar to dogs, measuring 1.77 x 3.11 cm in the evaluated Andean Bear. Transrectal ultrasonographic images of the prostate of a bear of the species *Ursus thibetanus* (Jeong et al. 2019) coincide with the images found for the species *T. ornatus*; however, the study does not provide gland measurements for interspecific comparison. Although there are studies describing the ultrasonographic topography of the abdominal and pelvic organs in *T. ornatus* (Cahua & Sato 2012; Talavera et al. 2021), no description of the prostate was found, which may be related to the difficulty of visualizing the gland due to its proximity to the pelvis or bladder filling, hindering visualization.

CONCLUSION

Phimosis can affect Andean Bears, as it does other mammals, and this is the first report. The testicular measurements (LT 3.87 x 2.27 cm and RT 3.66 x 2.16 cm) obtained by ultrasonography are consistent with the literature (LT 3.16 x 2.44 cm and RT 3.19 x 2.55 cm). The accessory gland in the pelvic region is located caudal to the bladder wall, with a hypoechoic appearance, regular contour, and oval shape in the longitudinal section, measuring 1.77 x 3.11 cm. Further studies are needed for comparison and determination of prostate normality.

REFERENCES

- Ali, A., D. Derar, F.A. Al-Sobyil, M.M. Zeitoun, K.M.A. Hassanein & A. Al-Howas (2016). Phimosis in male dromedary camels: Clinical findings and changes in the hemogram, nitric oxide metabolites, and testosterone concentrations. *Theriogenology* 85(9): 1576–1581. <https://doi.org/10.1016/j.theriogenology.2016.01.011>
- Alves, C.E.F., M.B.R. Faleiro, R.L. Amorim & V.M.B.D. De Moura (2010). Avaliação histológica da próstata de cães adultos sexualmente intactos. *Arquivo Brasileiro de Medicina Veterinária e Zootecnia* 62(3): 596–602. <https://doi.org/10.1590/S0102-09352010000300014>
- Araújo, G.R. de, P.N. Jorge-Neto, A.C. Csermak-Jr, C.S. Pizzutto, T.C. Luczinski & T. de Deco-Souza (2021). Avanços na andrologia de grandes felinos neotropicais. *Revista Brasileira de Reprodução Animal* 45(4): 219–228. <https://doi.org/10.21451/1809-3000.RBRA2021.028>
- Araújo, G.R., A.F. Moraes-Ferreira, T.C. Luczinski, A.C. Csermak-Junior, T. Deco-Souza, C.S. Pizzutto & P.N. Jorge-Neto (2022). Ultrasound pregnancy diagnosis in a free-living jaguar (*Panthera onca*) with subsequent birth: First case report. *Animal Reproduction* 19(1): Abstracts ISABR 2020/2021.
- Araújo, G.R., T.A.R. Paula, T. Deco-Souza, R.G. Morato, L.C.F. Bergo, L.C. Silva, P.N. Jorge-Neto & B.F.B. Sampaio (2020). Colheita farmacológica de sêmen de onças-pardas (*Puma*

- concolor: Mammalia: Carnivora: Felidae). *Arquivo Brasileiro de Medicina Veterinária e Zootecnia* 72(2): 437–442. <https://doi.org/10.1590/1678-4162-11030>
- Cahua U.J. & A.S. Sato (2012)**. Reporte ultrasonográfico postmortem de órganos abdominales del oso de anteojos (*Tremarctos ornatus*). *Revista de Investigaciones Veterinarias Del Perú* 23(2): 235–239. <https://doi.org/10.15381/rivep.v23i2.904>
- Christensen, B.W. (2018)**. Canine Prostate Disease. *Veterinary Clinics of North America: Small Animal Practice* 48(4): 701–719. <https://doi.org/10.1016/j.cvsm.2018.02.012>
- Collins, D.M. (2015)**. Ursidae, pp. 498–508. In: *Fowler's Zoo and Wild Animal Medicine, Volume 8*. Elsevier.
- Cueva, D.F., B. Gutierrez, G. Bruque, S. Molina & M.L. Torres (2018)**. Mitochondrial DNA reveals low genetic diversity in Ecuadorian Andean Bears. *Ursus* 29(1): 43. <https://doi.org/10.2192/URSUS-D-17-00020.2>
- Cueva, D.F., R. Zug, M.J. Pozo, S. Molina, R. Cisneros, M.R. Bustamante & M.D.L. Torres (2024)**. Evidence of population genetic structure in Ecuadorian Andean bears. *Scientific Reports* 14(1): 2834. <https://doi.org/10.1038/s41598-024-53003-5>
- De Vlaming, A., M.L. Wallace & G.W. Ellison (2019)**. Clinical characteristics, classification, and surgical outcome for kittens with phimosis: 8 cases (2009–2017). *Journal of the American Veterinary Medical Association* 255(9): 1039–1046. <https://doi.org/10.2460/javma.255.9.1039>
- Deco-Souza, T., G.R. Araújo, C.S. Pizzutto, L.A. Requena, & P.N. Jorge-Neto (2024)**. In situ and ex situ Jaguar (*Panthera onca*) reproduction: what do we have so far? *Theriogenology Wild* 100070. <https://doi.org/10.1016/j.therwi.2024.100070>
- Gazendam, B.A.T., A. Avenant, A. Kitshoff, C.J. Blignaut, A.S.W. Tordiffe, S.N. Hoepner, E.H. Hooijberg & M.L. Schulman (2023)**. The first report of the clinical diagnosis and surgical management of pyometra in two cheetahs (*Acinonyx jubatus*). *Theriogenology Wild* 3: 100046. <https://doi.org/10.1016/j.therwi.2023.100046>
- Gould, J. (1871)**. December 5, 1871 pp. 699–766. In: *Proceedings of the Zoological Society of London*. Zoological Society of London, London.
- Hildebrandt, T.B., R. Hermes, K. Jewgenow & F. Göritz (2000)**. Ultrasonography as an important tool for the development and application of reproductive technologies in non-domestic species. *Theriogenology* 53(1): 73–84. [https://doi.org/10.1016/S0093-691X\(99\)00241-1](https://doi.org/10.1016/S0093-691X(99)00241-1)
- Hohendorff, R. von & C. Giacomini (2014)**. Carnivora – Ursidae (Ursos) pp. 880–892. In: *Tratado de animais selvagens: medicina veterinária*. Roca, São Paulo.
- Jeong, D.H., J.J. Yang, M.K. Seo, A.N. Lee & Y.K. Lim (2019)**. Effectiveness of urethral catheterization under ultrasound guidance for semen collection from Asiatic Black Bears (*Ursus thibetanus*). *Theriogenology* 129: 154–159. <https://doi.org/10.1016/j.theriogenology.2019.02.032>
- Kane, L.P., J.N. Langan & M.J. Adkesson (2021)**. Successful surgical correction of phimosis in Amur Leopards (*Panthera pardus orientalis*) using a carbon dioxide laser: case series. *Journal of Zoo and Wildlife Medicine* 52(4): 1280–1285. <https://doi.org/10.1638/2021-0027>
- Lima, E.G., R. dos S. Teixeira, C.F. da Cruz, S.R.S. de Alcântara & C.M. Pigozzo (2022)**. Descrição comportamental do urso de óculos - *Tremarctos ornatus* em cativeiro no zoológico de Salvador-BA. *Candombá* 8(1): 37–52.
- Madhesh, E., Y. Ajith, U. Dimri, S. Shanmuganathan, P. Sivasankar & R. Karthikeyan (2019)**. Medical management of phimosis associated with generalized Sticker's sarcoma in an intact mongrel dog. *Comparative Clinical Pathology* 28(6): 1851–1854. <https://doi.org/10.1007/s00580-019-03031-9>
- Martel-Arquette, A. & C. Mans (2016)**. Management of Phimosis and Balanoposthitis in a Pet Chinchilla (*Chinchilla lanigera*). *Journal of Exotic Pet Medicine* 25(1): 60–64. <https://doi.org/10.1053/j.jepm.2015.12.001>
- MCTIC (2023)**. Perguntas frequentes ao Conceia <https://antigo.mctic.gov.br/mctic/opencms/institucional/concea/paginas/FAQs.html> (accessed on 26 September 2023).
- New York (N.Y.). Board of Commissioners of the Central Park (1867)**. *Eleventh Annual Report of the Board of Commissioners of the Central Park, Vol. 11th*. Board of Commissioners of the Central Park, New York, 200 pp.
- Pizzutto, C.S., H. Colbachini, & P.N. Jorge-Neto (2021)**. One Conservation: the integrated view of biodiversity conservation. *Animal Reproduction* 18(2): e20210024. <https://doi.org/10.1590/1984-3143-ar2021-0024>
- Pizzutto, C.S. & P.N. Jorge-Neto (2023)**. Ética e condicionamento de animais selvagens para a aplicação de técnicas de reprodução assistida. *Revista Brasileira de Reprodução Animal* 47(3): 530–535. <https://doi.org/10.21451/1809-3000.RBRA2023.054>
- Pugliesi, G., G.D. de Melo, G.A. Ataíde, C.A.G. Pellegrino, J.B. Silva, C.C. Rocha, I.G. Motta, J.L.M. Vasconcelos & M. Binelli (2018)**. Use of Doppler ultrasonography in embryo transfer programs: feasibility and field results. *Animal Reproduction* 15(3): 239–246. <https://doi.org/10.21451/1984-3143-AR2018-0059>
- Requena, L.A., P.N. Jorge-Neto, G.R. de Araújo, L. Silveira, A.T.A. Jácomo, A. Echegaray, T. Deco-Souza & S. Pizzutto (2023)**. From livestock production to conservation: innovation for evaluating testicular parenchyma echotexture, and seminal quality in jaguars. *Revista Brasileira de Reprodução Animal* 47(2): 438.
- Ruiz-García, M. (2003)**. Molecular population genetic analysis of the spectacled Bear (*Tremarctos ornatus*) in the northern Andean area. *Hereditas* 138(2): 81–93. <https://doi.org/10.1034/j.1601-5223.2003.01578.x>
- da Silva, M.C.C., P.N. Jorge-Neto, G.M. Miranda, A.C. Csermak-Jr, R. Zanella, C.S. Pizzutto, H. Colbachini, A.R. Silva, G.R. de Araújo & T. de Deco-Souza (2022)**. Reproductive parameters of male crab-eating foxes (*Cerdocyon thous*) subjected to pharmacological semen collection by urethral catheterization. *Theriogenology Wild* 1: 100004. <https://doi.org/10.1016/j.therwi.2022.100004>
- Silvatti, B., T.M. Granato, P.N. Jorge-Neto, M.M.C.P. Luppi, L.C. Reisfeld, P.C. Henrique, F.L.A. Padilha, R.F. Leite, J.D. de Agostini Losano, G.K.V. Kawai & M. Nichi & C.S. Pizzutto (2020)**. Sperm evaluation and morphological description of male genitalia of meerkats (*Suricata suricatta*). *Animal Reproduction Science* 221: 106585. <https://doi.org/10.1016/j.anireprosci.2020.106585>
- Talavera C., K. Muñoz, C. Hermoza & R. Grandez (2021)**. Caracterización ultrasonográfica de los órganos abdominales y pélvicos del oso de anteojos (*Tremarctos ornatus*) en cautiverio. *Revista de Investigaciones Veterinarias Del Perú* 32(6): e21693. <https://doi.org/10.15381/rivep.v32i6.21693>
- Velez-Liendo, X. & S. García-Rangel (2017)**. *Tremarctos ornatus* (errata version published in 2018). The IUCN Red List of Threatened Species 2017: eT22066A123792952. <https://doi.org/10.2305/IUCN.UK.2017-3.RLTS.T22066A45034047.en>. Accessed on 17 April 2026.
- Volkmann, D. (2023)**. Phimosis pp. 736–739. In: Monnet, E. (ed.). *Small Animal Soft Tissue Surgery*. Wiley, 1025 pp. <https://doi.org/10.1002/9781119693741>

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3A2 Varadarajulu Nagar, FCI Road, Ganapathy, Coimbatore,
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