Curriculum vitae

Name:	**Anne Brigitte DEMES**
Present Position:	Professor
	Dept. of Anatomical Sciences
	State University of New York
	Stony Brook, N.Y. 11794-8081
Phone/fax:	(631) 444-3119 / (631) 444-3947
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Web page:	https://medicine.stonybrookmedicine.edu/anatomy/people/facultypage/brigitte

Education and Degrees

1977
Diplom Biologie, Universität Frankfurt: Anthropologie, Anatomie, Vor- und Frühgeschichte. Thesis: Der Torus occipitalis in der Evolution der Hominiden (The Occipital Torus in Hominid Evolution).

1982
Dr. rer.nat., Universität Bochum, Thesis: Über die mechanische Beanspruchung der Schädelbasis von Primaten (Biomechanics of the Primate Skull Base).

1989
Habilitation Anatomie, Universität Bochum, Thesis: Biomechanische Allometrie. Wie die Körpergröße Fortbewegung und Körperform bei Primaten bestimmt (Biomechanics and Allometry: The Influence of Body Size on Locomotor Performance and Body Proportions in Primates).

Academic Appointments

2017 – present
Professor emeritus, Department of Anatomical Sciences and Interdepartmental Doctoral Program in Anthropological Sciences, SUNY Stony Brook

1999 – 2017
Professor, Department of Anatomical Sciences and Interdepartmental Doctoral Program in Anthropological Sciences, SUNY Stony Brook

1993 - 1999
Associate Professor, Department of Anatomical Sciences and Doctoral Program in Anthropological Sciences, SUNY Stony Brook

1989 - 1993
Assistant Professor, Department of Anatomical Sciences and Doctoral Program in Anthropological Sciences, SUNY Stony Brook

1983 - 1989
Hochschulassistentin, Abt. Funktionelle Morphologie, Institut für Anatomie, Ruhr-Universität Bochum

1978 - 1983
Wissenschaftliche Mitarbeiterin, Abt. Funktionelle Morphologie, Institut für Anatomie, Ruhr-Universität Bochum

Sept. 1985 - March 1986
Visiting Assistant Professor, Dept. of Anatomical Sciences, SUNY Stony Brook

Teaching

SUNY Stony Brook:

Regional Human Anatomy for Allied Health Professions (course director 1990 - present); Contributions to “Primate Evolution”, “Human Evolution”, “Vertebrate Paleontology” and “Animal Mechanics” in the Interdepartmental Doctoral Program of Anthropological Sciences and the Doctoral Program in Anatomical Sciences, as well as to several undergraduate classes in Anthropology.

Ruhr-Universität Bochum:

Gross Anatomy including Neuroanatomy (10 semesters), Histology (10 semesters), Surface Anatomy (5 semesters), Human Evolution (2 semesters), Osteology for students of prehistory (1 semester), Primatology (2 semesters), Man as a Subject of Biological Sciences (1 semester), Ethical Problems Related to Anatomy and Medicine in General (3 semesters)

Guest instructor:

1985, SUNY Stony Brook: Anatomy
1985, Universität Hannover, Arbeitswissenschaft: Ergonomics
1983, Universität Göttingen, Anthropologisches Institut: Biomechanics.

Graduate Students

Primary advisor

Nick Holowka (PhD 2015)
Ian Wallace (PhD 2013)
Anne Su (PhD 2011)
Andy Farke (PhD 2008, co-advisor)
Jesse Young (PhD 2008)
Keith Metzger (PhD 2005, co-advisor)
Bob Streb (PhD 2005)
Theresa Franz (MA 2004)
Chris Heesy (PhD 2004, co-advisor)
Roberto Fajardo (PhD 2004)
Lea Ann Jolley (MA 2001)
John Polk (PhD 2001)
Mark Spencer (PhD 1995)

Advisory committee member

Ashley Parks (PhD pending)
Bonnie Sumner (MA 2016)
Nathan Thompson (PhD 2016)
Phil Nicodemo (MA 2016)
Peter Fernandez (PhD 2016)
Amanda Kingston (PhD 2016)
Stefanie Maiolino (PhD 2015)
Jacob McCartney (PhD 2013)
Sara Burch (PhD 2013)
Ashley Gosselin-Ildari (PhD 2013)
Patrick O’Connor (PhD 2003)
Eric Mittra (PhD MA, 2000)
Kamla Ahluwalia (PhD 2000)
Doug Dougherty (PhD 1999)
Roshna Wunderlich (PhD 1998)
Brian Richmond (PhD 1998)
David Strait (PhD 1997)
Osbjorn Pearson (PhD 1997)
Pierre Lemelin (PhD 1996)
Jeffrey Walker (PhD 1995)
Daniel Schmitt (PhD 1995)
Christine Wall (PhD 1995)

External advisory committee member

Adiba Ali (MA 2007, Dept. of Biomedical Engineering, SBU)
Rick Essner (PhD 2003, Ohio University)
Jonathan Chui (MA 2001, Dept. of Biomedical Engineering, SBU)
Tim Ryan (PhD 2000, UT Austin)
Ron Heinrich (PhD 1995, Johns Hopkins University)

Society Memberships Past and Present

Deutsche Anthropologische Gesellschaft
Deutsche Anatomische Gesellschaft
Deutsche Zoologische Gesellschaft
American Association of Physical Anthropologists
Society for Integrative and Comparative Biology
American Society of Biomechanics

Grants

2009
Integrated modeling and experimental assessment of chimpanzee and hominin locomotion. NSF Hominid Grant ($1,875,760) Co-PI.
2009
Going digital in Stony Brook's Primate Locomotion Laboratory NSF ($146,235*) PI.
* Money was returned b/c of overlap with Hominid grant
2009
Integrative primate gait dynamics. NSF Supplement ($25, 419) PI
2007
Wild capuchin monkeys transport and lift heavy stone tools bipedally. National Geographic ($20,594) Co-PI.
2006
Integrative primate gait dynamics. NSF ($144,851) PI.
2004
Experimental studies on primate locomotion. NSF ($100,034) Co-PI.
2003
High resolution micro-computed tomography scanning of biologic tissues. NSF ($ 277,954) Co-PI.
2001
Experimental studies on primate locomotion. NSF ($410,932) Co-PI.
1998
Experimental studies on primate locomotion. NSF ($330,446) Co-PI.
1997
Acquisition of a motion analysis facility for the study of primate locomotion at SUNY, Stony Brook. NSF with SUNY Stony Brook matching funds ($ 208,502) PI.
1995
Experimental studies on primate locomotion. NSF ($ 300,279) Co-PI.
1992
"Vertical clingers and leapers" - a biomechanical and allometric analysis. NSF ($ 61,154) PI.
1988
Biomechanische Allometrie. Deutsche Forschungsgemeinschaft De 390/1-1 (DM 14,000).

Awards

2017
Dean's Award for Excellence in Teaching, School of Health Technology and Management
2005

Dean's Award for Excellence in Service to Graduate Education by a graduate program director, SUNY Stony Brook

1995

Aesculapius Award in Recognition of Outstanding Teaching, School of Medicine, SUNY Stony Brook

1994

Faculty Honor Award, School of Health Technology and Management, SUNY Stony Brook

1981

Förderpreis für interdisziplinäre Zusammenarbeit der Ruhr-Universität Bochum

1978

Graduiertenförderung

Professional and Administrative Service

Grants reviewed for

National Science Foundation
Leakey Foundation
Wenner Gren Foundation
Deutsche Forschungsgemeinschaft

Manuscripts reviewed for

Journal of Human Evolution
Zeitschrift für Morphologie und Anthropologie
American Journal of Physical Anthropology
Journal of Anatomy
Journal of Experimental Biology
Proceedings of the Royal Society
Evolutionary Anthropology
Journal of Morphology
Journal of Zoology
Journal of Biomechanics
American Journal of Primatology
International Journal of Primatology
Journal of Experimental Biology
Current Anthropology
Journal of Mammalian Evolution
Zoology

Symposium organized

Aktuelle Fragen und Ergebnisse morphologisch-primatologischer Forschung. (together with R.D. Martin). Gesellschaft für Anthropologie und Humangenetik, 21. Tagung, Bremen/Bochum, 1989.

Other Service

Executive Committee Member American Association of Physical Anthropologists (2007 – 2010)
Associate Editor, American Journal of Physical Anthropology (1995 - 2000)
Member of Ethics Board, Gesellschaft für Anthropologie und Humangenetik (1984 - 1987).
Member of Senat (1979 - 1981), Konvent (1988 - 1989), and Equal Opportunity Committee (1986 - 1989) of the University of Bochum
Student Prize Committee, Society of Integrative and Comparative Biology meeting (2007)
Member of Selection Committee American Society of Biomechanics Young Scientist Award (2009)

Discussant for Symposium 'Bone Microstructure: Imaging, Analysis and Function' at the 85th annual meeting of the American Association of Physical Anthropologists (2016)

Stony Brook University Administrative Service

Graduate Director, Anatomical Sciences (1992 - 1998)
Member of the Institutional Animal Care and Use Committee (2005 – 2017)
Member of Selection committee Aesculapius Award for Excellence in Teaching (1996 – 2006)
Graduate Director, Interdepartmental Doctoral Program in Anthropological Sciences (2002 – 2004)
Member of Admissions Committee of the Physician's Assistant Program (1990 - 2016)
Member of Admissions Committee of the Physical Therapy Program (1996 -1998)
Member of Faculty Senate of the Medical School (1990 - 2017)
Member of the Executive Committee of the Medical School (1990 - 1993)
Member of the Appointment, Promotion and Tenure Committee of the Medical School (2000 – 2005)
Member of Admissions Committee (1992 - 2014) and TA Committee (1995 – 2004) of the Interdepartmental Doctoral Program in Anthropological Sciences
Chair of the TA Committee of the Interdepartmental Doctoral Program in Anthropological Sciences (1995 - 2001)
Chair of the Admissions Committee of the Interdepartmental Doctoral Program in Anthropological Sciences (2007 – 2012)
Member of Executive committee (2006 – 2015) of the Interdepartmental Doctoral Program in Anthropological Sciences
Chair of Search Committee for faculty position in Anatomical Sciences (2004)
Member of Search Committee for Turkana Basin Institute Palaeontologist (2006)
Member of Search Committee for faculty position in Anthropology (2013)

Invited lectures

Harvard University, Concord Field Station, 2016: Chimpanzee locomotion research: What we can learn about the evolution of human bipedal gait.
Mount Sinai Medical Center, Grand Rounds Orthopedics, 2011: Evolutionary history of human bipedal gait: Insights from primate gait studies.
University of Cincinnati, Taft Research Center, 2011: Facultative bipedalism in primates: Understanding the evolution of human bipedal gait.
National Evolutionary Synthesis Center, Durham, 2006: The functional interface between long bone diaphyseal shapes and locomotory forces.
State University of New York at Stony Brook, Department of Mechanical Engineering, 2000: *In vivo* bone strain in macaques: Implications for the functional adaptations of bone.
Harvard University, Concord Field Station, 2000: Leaping mechanics and musculoskeletal design in primates.
Penn State University, Center for Locomotion Studies, 1999: Use of strain gauges in the study of primate locomotor biomechanics.
Ohio University, Dept. of Biological Sciences, 1999: *In vivo* bone strain in the macaque tibia and ulna during functional activity.
Gesellschaft für Primatologie, Annual Meeting, Berlin, 1997: *In vivo* Dehnungsmessungen an der Ulna von Makaken: Bedeutung für die funktionelle Anpassung von Knochen. Invited keynote lecture
Universität Essen, Zoologisches Institut, 1997: Die Evolution der menschlichen Bipedie in funktioneller Sicht.
Yale University, Dept. of Anthropology, 1995: Leaping lemurs: athletic performance and body design.
Ohio University, Dept. of Biological Sciences, 1995: How primates move: interactions of locomotor forces, morphology, behavior and energetics.

Harvard University, Earth History and Paleaobiology, 1993: The kinetics of primate quadrupedalism: Implications for the evolution of human bipedalism.
Johns Hopkins University, Dept. of Cell Biology and Anatomy, 1992: Forces on fore- and hind limbs of quadrupedally walking primates.
Duke University, Biological Anthropology and Anatomy Seminar, 1992: Primate gait and long bone morphology.
New York Regional Primatology Group, 1990: Biomechanics and allometric scaling of locomotor patterns and body proportions in leaping primates.
Institut für Anthropologie und Humangenetik der Universität München, 1990: Über den Zusammenhang von Größe, Bewegung und Körperform bei Primaten.
Zoologisches Institut der Universität Tübingen, 1989: Über den Zusammenhang von Größe, Bewegung und Körperform bei springenden Primaten.
Anatomisches Institut der Universität Köln, 1989: Biomechanische Allometrie: Wie die Größe das Bewegungsmuster und die Körperform bei springenden Primaten bestimmt.
Dept. of Anantomical Sciences, State University of New York at Stony Brook, 1989: Biomechanics and allometric scaling of locomotor patterns and body proportions in leaping primates.
Primate Society of Great Britain, Spring Scientific Meeting, Liverpool, 1989: Bite force, diet and cranial morphology of fossil hominds.
Anthropologisches Institut der Universität Göttingen, 1987: Funktionelle Bedeutung größenabhängiger Unterschiede im Bewegungsverhalten und in den Körperproportionen von Halbaffen.
Dept. of Anatomy, Duke University, Durham, 1986: Biomechanics of size- associated shape changes in the hominoid masticatory apparatus.
Anthropologisches Institut der Universität Bremen, 1984: Patriarchat und Krieg. Biologische Aggressionsforschung und kulturelle Geschlechterrollen.
Anatomisches Institut der Universität Frankfurt, 1982: Biomechanik des Schädels.
Zoologisches Institut der Universität Bochum, 1982: Über die mechanische Beanspruchung der Schädelbasis von Primaten.
Dept. of Anatomy, State University of New York at Stony Brook, 1981: Influence of mechanical stresses on basicranial form in primates.
Anthropologisches Institut der Universität Göttingen, 1980: Der Einfluss von mechanischen Beanspruchungen auf die Gestalt des Schädels von Primaten.

Peer-Reviewed Publications

In press

76. Holowka NB, O'Neill MC, Thompson NE, **Demes B**. Chimpanzee ankle and foot joint kinematics: arboreal versus terrestrial locomotion. Am J Phys Anthropol

2017

75. Wallace IJ, **Demes B**, Judex S. Ontogenetic and genetic influences on bone's responsiveness to mechanical signals. In Early Bone Development in Anthropology. Eds JC Percival, JT Richtsmeier. Cambridge: Cambridge University Press, pp 233-253.

74. Holowka NB, O'Neill MC, Thompson NE, **Demes B**. Chimpanzee and human midfoot motion during bipedal walking and the evolution of the longitudinal arch of the foot. *J Hum Evol* 104: 23-31

2016

73. Hatala KG, **Demes B**, Richmond BG. Laetoli footprints reveal bipedal gait biomechanics different from those of modern humans and chimpanzees. *Proc Roy Soc B*. DOI: 10.1098/rspb.2016.0235

72. Fernandez PJ, Holowka NB, **Demes B**, Jungers WL. Form and function of the human and chimpanzee forefoot: implications for early hominin bipedalism. *Scientific Reports* DOI: 10.1038/srep30532

2015

71. **Demes B**, Thompson NE, O'Neill MC, Umberger BR. Center of mass mechanics of chimpanzee bipedal walking. *Am J Phys Anthropol* 156: 422–433.

70. Thompson NE, **Demes B**, O'Neill MC, Holowka NB, Larson SG. Surprising trunk rotational capabilities in chimpanzees and implications for bipedal walking proficiency in early hominins. *Nat Comm* DOI: 10.1038/ncomms9416.

69. Wallace IJ, Pagnotti GM, Rubin-Sigler J, Naeher M., Copes LE, Judex S, Rubin CT, **Demes B**. 2015. Focal enhancement of the skeleton to exercise correlates with responsivity of bone marrow mesenchymal stem cells rather than peak external forces. *J Exp Biol* 218: 3002-3009.

68. O'Neill MC, Lee L-F, **Demes B**, Thompson NE, Larson SG, Stern JT Jr, Umberger BR. Three-dimensional kinematics of the pelvis and hind limbs in chimpanzee (*Pan troglodytes*) and human bipedal walking. *J Hum Evol* 86: 32–42.

67. Wallace IJ, Judex S, **Demes B**. Effect of load-bearing exercise on skeletal structure and mechanics differ between outbred populations of mice. *Bone* 72: 1–8.

66. Wallace IJ, Gupta S, Sankaran J, **Demes B**, Judex S. Bone shaft bending strength index is unaffected by exercise and unloading in mice. *J Anat* 226: 224–228.

2014

65. Wallace IJ, **Demes B**, Mongle C, Pearson OM, Polk JD, Lieberman DE. Exercise-induced bone formation is poorly linked to local strain magnitude in the sheep tibia. *PLOSone* 9: e99108.

2013

64. O"Neill MC, Lee L-F, Larson SG, Demes B, Stern JT Jr, Umberger BR. 2013. A three-dimensional musculoskeletal model of the chimpanzee (Pan troglodytes) pelvis and hind limb. *J Exp Biol* 216: 3709 – 3723.

63. **Demes B**, O'Neill MC. Ground reaction forces and center of mass mechanics of bipedal capuchin monkeys: Implications for the evolution of human bipedalism. *Am J Phys. Anthropol* 150: 76–86.

62. Wallace IJ, Kwaczala AT, Judex S, **Demes B**, Carlson KJ. Physical activity engendering loads from diverse directions augments the growing skeleton. *J Musculoskelet Neuronal Interact* 13: 245–250.

2012

61. Wallace IJ, Tommasini SM, Judex S, Garland T Jr, **Demes B**. Genetic variations and physical activity as determinants of limb bone morphology. An experimental approach using a mouse model. *Am J Phys Anthropol* 148: 24–35.

2011

60. **Demes B**. Three-dimensional kinematics of capuchin bipedalism. *Am J Phys Anthropol* 145: 147–155.

59. Larson SG, **Demes B**. Weight support distribution during quadrupedal walking in *Ateles* and *Cebus*. *Am J Phys Anthropol* 144: 633–642.

2010

58. Wallace IJ, Middleton KM, Lublinsky S, Kelly SA, Judex S, Garland T Jr, **Demes B**. Functional significance of genetic variation underlying limb bone diaphyseal structure. *Am J Phys Anthropol* 143: 21–31.

2009

57. **Demes B**, Carlson KJ. Locomotor variation and bending regimes of capuchin limb bones. *Am J Phys Anthropol* 139: 558–571.

2008

56. Wallace IJ, & **Demes B**. Symmetrical gaits of *Cebus apella*: Implications for the functional significance of diagonal sequence gait in primates. *J Hum. Evol* 54: 783–794.

55. Jungers WL, *Demes B*, Godfrey LR.. How big were the "giant" extinct lemurs of Madagascar? In: Elwyn Simons – A Search for Origins. Eds JG Fleagle and CC Gilbert. New York: Springer, pp 343–360.

54. Wallace IJ, **Demes B**, Jungers WL, Alvero M, Su A. The bipedalism of the Dmanisi hominins: Pigeon-toed early Homo? *Am J Phys Anthropol* 136: 375–378.

2007

53. Atzeva M, **Demes B**, Kirkbride M., Burrows AM, Smith TD. Comparison of hind limb muscle mass in neonate and adult prosimian primates. *J Hum Evol* 52: 231–242.

52. **Demes B**. *In vivo* bone strain and bone functional adaptation. *Am J Phys Anthropol* 133: 717–722.

2006

51. **Demes B**, Carlson KJ, Franz TM. Cutting corners: The dynamics of turning behaviors in two primate species. *J Exp Biol* 209: 927-937.

50. Heesy CP, Ross CF, **Demes B**. Oculomotor stability and the functions of the postorbital bar and septum. In: Primate Origins: Adaptation and Evolution. Eds MJ Ravosa and M Dagosto. New York: Kluwer Academic/Plenum Publishers, pp. 257-283.

2005

49. **Demes B**, Krause DW. Suction feeding in a Triassic protorosaur? Letter. *Science* 308: 1112–1113.

48. Franz TM, **Demes B**, Carlson KJ. Gait mechanics of lemurid primates on terrestrial and arboreal substrates. *J Hum. Evol* 48: 199-217.

47. **Demes B**, Franz TM, Carlson KJ. External forces on the limbs of jumping lemurs at take-off and landing. *Am J Phys Anthropol* 128: 348–358.

46. Carlson KJ, **Demes B**, Franz TM. Mediolateral forces associated with quadrupedal gaits of lemurids. *J Zool Lond* 266: 261-273.

45. Grine FG, Spencer MA, **Demes B**, Smith HF, Strait DS, Constant DA. Molar enamel thickness in the chacma baboon, *Papio ursinus* (Kerr 1792). *Am J Phys Anthropol* 128: 812–822.

44. Polk JD, Psutka SP, **Demes B**. Sampling frequencies and measurement error for linear and temporal gait parameters in primate locomotion. *J Hum Evol*. 49: 665-679.

2004

43. Lieberman DE, Polk JD, **Demes B**. Predicting long bone loading from cross-sectional geometry. *Am J Phys Anthropol* 123: 156–171.

42. Stern JT Jr, **Demes B**, Kerrigan DC. Modeling human walking as an inverted pendulum of varyirg length. In: Shaping Primate Evolution, Eds F Anapol, RC German and NG Jablonski. Cambridge: Cambridge University Press, pp 297–333.

2003

41. Lieberman DE, Pearson OM, Polk JD, **Demes B**, Crompton AW. Optimization of bone growth and remodeling in response to loading in the mammalian limb. *J Exp Biol* 206: 3125–3138.

2001

40. Shapiro LJ, **Demes B**, Cooper J. Lateral bending of the lumbar spine during quadrupedalism in strepsirhines. *J Hum Evol* 40: 231–259.

39. **Demes B**, Qin Y-X, Stern JT Jr, Larson SG, Rubin CT. Patterns of strain in the macaque tibia during functional activity. *Am J Phys Anthropol* 116: 257– 65.

2000

38. Polk JD, **Demes B**, Jungers WL, Heinrich RE, Biknevicius AR, Runestad JA. Cross-sectional properties of primate and nonprimate limb bones. *J Hum Evol* 39: 297–325.

37. **Demes B**, Jungers WL, Walker C. Cortical bone distribution in the femoral neck of strepsirhine primates. *J Hum Evol* 39: 367–379.

1999

Demes B, Fleagle JG, Jungers WL. Takeoff and landing forces of leaping prosimian primates. J *Hum Evol* 37: 279–292.

1997

36. **Demes B**, Fleagle JG, Lemelin P. Myological correlates of prosimian leaping. *J Hum Evol* 34: 385–399.
35. **Demes B**, Stern JT Jr, Hausman MR, Larson SG, McKleod KJ, Rubin CT. Patterns of strain in the macaque ulna during functional activity. *Am J Phys Anthropol* 106: 87–100.
34. **Demes B**. Use of strain gauges in the study of primate locomotor biomechanics. In: Primate Locomotion Recent Advances. Eds E Strasser, JG Fleagle, A Rosenberger and H McHenry. New York, Plenum Press, pp 237–254.

1996

33. **Demes B**, Jungers WL, Fleagle JG, Wunderlich RE, Richmond BG, Lemelin P. Body size and leaping kinematics in Malagasy vertical clingers and leapers. *J Hum Evol* 31: 367-388.

1995

32. **Demes B**, Jungers WL, Gross TS, Fleagle JG. Kinetics of leaping primates: Influence of substrate orientation and compliance. *Am J Phys Anthropol* 96: 419-429.

1994

31. **Demes B**, Larson SG, Stern JT Jr, Jungers WL, Biknevicius AR, Schmitt D. The kinetics of primate quadrupedalism: "hindlimb drive" reconsidered. - *J Hum Evol* 26: 353-374.

1993

30. **Demes B**, Jungers WL. Long bone cross-sectional dimensions, locomotor adaptations, and body size in prosimian primates. - *J Hum Evol* 25: 57-74.
29. Spencer MA, **Demes B**. A biomechanical analysis of the facial configuration of neanderthals and inuits. - *Am J Phys Anthropol* 91: 1-20.
28. Nieschalk U, **Demes B**. Biomechanical determinants of reduction of the second ray in Lorisinae. - In: Hands of Primates. Eds H Preuschoft and DJ Chivers. Wien: Springer Verlag, pp 225-234.
27. Grine FE, **Demes B**, Jungers WL, Cole TM. Taxonomic affinity of the early *Homo* cranium from Swartcrans, South Africa. *Am J Phys Anthropol* 92: 411-426.

1991

26. **Demes B**, Forchap E, Herwig H. They seem to glide. Are there aerodynamic effects in leaping prosimian primates? - *Z Morph Anthropol* 78: 375-385.
25. **Demes B**, Jungers WL, Selpien K. Body size, locomotion, and long bone cross-sectional geometry in indriid primates. *Am J Phys Anthropol* 86: 537-547.
24. **Demes B**. Biomechanische Allometrie: Wie die Körpergröße Fortbewegung und Körperform von Primaten bestimmt. Frankfurt: *Courier Forsch.-Inst. Senckenberg* 141, 83 pp.

1990

23. **Demes B**, Jungers WL, Nieschalk U. Size- and speed- related aspects of quadrupedal walking in slender and slow lorises. In: Gravity, Posture and Locomotion in Primates. Eds FK Jouffroy, MH Stack, C Niemitz, Firenze: Il Sedicesimo: pp 175–197.
22. **Demes B**, Creel N. Funktionelle Überlegungen zur Evolution der menschlichen Schädelform. Verh. Anat. Ges. 83 (*Anat. Anz.* Suppl. 166): 345-346.

1989

21. **Demes B**, Günther MM. Wie die Körpermasse den Springstil von Halbaffen und deren Proportionen bestimmt. *Z Morph Anthropol* 77: 209-225.
20. **Demes B**, Jungers WL. Functional differentiation of long bones in lorises. *Folia Primatol*. 52: 58-69.
19. **Demes B**, Günther MM. Biomechanics and allometric scaling in primate locomotion and morphology. *Folia Primatol* 53: 125-141.

1988

18. **Demes B**, Creel N. Bite force, diet, and cranial morphology of fossil hominids. *J Hum Evol* 17: 657-670.

1987

17. **Demes B**. Functional interpretation of some characters of fossil hominid skulls. - In: Definition et Origin de l'Homme. Ed M Sakka. Paris: Editions du CNRS: pp 283-291.

16. **Demes B**. Another look at an old face: biomechanics of the neandertal facial skeleton reconsidered. - *J Hum Evol* 16: 297-303.

1986

15. **Demes B**, Creel N, Preuschoft H. Functional significance of allometric trends in the hominoid masticatory apparatus. In: Primate Evolution. Eds JG Else and PC Lee. Cambridge: Cambridge University Press, pp 229-237.

14. Preuschoft H, **Demes B**, Meyer M, Bär HF. The biomechanical principles realised in the upper jaw of long-snouted primates. In: Primate Evolution. Eds JG Else and PC Lee. Cambridge: Cambridge University Press, pp 249-264.

1985

13. **Demes B**. Biomechanics of the Primate Skull Base. *Adv. Anat. Embryol. & Cell Biol*. Vol. 94, Berlin: Springer Verlag, 59 pp.

12. **Demes B**. Biomechanics of the primate skull base. In: Vertebrate Morphology. Eds H-R Duncker and G Fleischer. *Fortschritte der Zoologie* Bd 30. Stuttgart: G Fischer Verlag, pp 139-142.

11. Preuschoft H, **Demes B**. Biomechanic determinants of arm length and body mass in brachiators. In: Vertebrate Morphology, Eds H-R Duncker and G Fleischer. *Fortschritte der Zoologie* Bd. 30, Stuttgart: G Fischer Verlag, pp 39-43.

10. Preuschoft H, **Demes B**. Influence of size and proportions on the biomechanics of brachiation. In: Size and Scaling in Primate Biology. Ed WL Jungers, New York: Plenum Press, pp 383-399.

9. Preuschoft H, **Demes B**, Meyer M, Bär HF. Die biomechanischen Prinzipien im Oberkiefer von langschnäuzigen Wirbeltieren. *Z Morph Anthropol* 76: 1-24.

1984

8. **Demes B**. Mechanical stresses at the primate skull base caused by the temporomandibular joint force. In: Food Acquisition and Processing in Primates. Eds DJ Chivers, BA Wood and A Bilsborough. New York: Plenum Press, pp 407-413.

7. **Demes B**, Preuschoft H. Die biomechanische Bedeutung der Armlänge und der Körpermasse für die hangelnde Fortbewegungsweise. *Z Morph Anthropol* 74: 261-274.

6. **Demes B**, Preuschoft H. Anatomie und Funktionsweise des Kauapparates. In: Die Zahnärztliche Versorgung. Enzyklopaedie. Eds Hilger, Jung and Spranger. Heidelberg: Huethig Verlag, pp 17-39.

5. **Demes B**, Preuschoft H, Wolff JEA. Stress-strength relationships in the mandibles of hominoids. In: Food Acquisition and Processing in Primates. Eds DJ Chivers, BA Wood and A Bilsborough. New York: Plenum Press, pp 369-390.

4. Preuschoft H, **Demes B.** Biomechanics of brachiation. In: The Lesser Apes. Eds H Preuschoft, DJ Chivers, WY Brockelman and N Creel. Edinburgh: Edinburgh University Press, pp 96–118.

1983

3. **Demes B**. Mechanical stresses and the shape of the primate skull. In: Morphologie Évolutive, Morphogenèse du Crâne et Origine de l'Homme. Ed M Sakka, Paris: CNRS, pp 75-84.

1982

2. **Demes B**. 1982. The resistance of primate skulls against mechanical stresses. *J Hum Evol* 11 (Special Isssue: European Yearbook of Physical Anthropology): 687-691.

1981

1. **Demes B**. Die Festigkeit von Primatenschädeln gegenüber mechanischen Beanspruchungen. *Z Morph Anthropol* 72: 47-64.

Book reviews

JMV Rayner and R.J Wootton (eds). 1991. Biomechanics in Evolution. *Am J Phys Anthropol* 91: 133-134, 1993.

R Knussmann (ed): Anthropologie. Handbuch der vergleichenden Biologie des Menschen. I/1. *J Hum Evol* 20: 374, 1991.

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