

## Non-human primates 2006

(includes publications since the last list and some that were not included in the last list)

Compiled by P. Hansen

Aboitiz, F., Garcia, R. R., Bosman, C. & Brunetti, E. (2006). Cortical memory mechanisms and language origins. *Brain Language*, **98**, 40-56.

Anderson, J. D., Patel, E. R., Irwin, M. T. & Owren, M. J. (2006). Species differences in the acoustic structure of zzuss alarm vocalizations of silky sifakas (*Propithecus candidus*) and diademed sifakas (*Propithecus diadema diadema*). *Am. J. Primatol.*, **68**, 71-72.

Arcadi, A. C. (2003). Is gestural communication more sophisticated than vocal communication in wild chimpanzees? *Behav. Brain Sci.*, **26**, 210-211.

Arnold, K. & Zuberbuehler, K. (2006). The alarm-calling system of adult male putty-nosed monkeys, *Cercopithecus nictitans martini*. *Anim. Behav.*, **72**, 643-653.

Arnold, K. & Zuberbuehler, K. (2006). Language evolution: Semantic combinations in primate calls. *Nature*, **441**, 303.

Averbeck, B. B. & Romanski, L. M. (2004). Principal and independent components of macaque vocalizations: Constructing stimuli to probe high-level sensory processing. *J. Neurophysiol.*, **91**, 2897-2909.

Bendor, D. & Wang, X. Q. (2006). Cortical representations of pitch in monkeys and humans. *Curr. Opin. Neurobiol.*, **16**, 391-399.

Bergman, T. J., Beehner, J. C., Cheney, D. L., Seyfarth, R. M. & Whitten, P. L. (2006). Interactions in male baboons: the importance of both males' testosterone. *Behav. Ecol. Sociobiol.*, **59**, 480-489.

Braune, P., Schmidt, S. & Zimmermann, E. (2005). Spacing and group coordination in a nocturnal primate, the golden brown mouse lemur (*Microcebus ravelobensis*): the role of olfactory and acoustic signals. *Behav. Ecol. Sociobiol.*, **58**, 587-596.

Brumm, H., Kipper, S., Riechelmann, C. & Todt, D. (2005). Do barbary macaques 'comment' on what they see? A first report on vocalizations accompanying interactions of third parties. *Primates*, **46**, 141-144.

Ceugniet, M. & Izumi, A. (2004). Individual vocal differences of the coo call in Japanese monkeys. *C. R. Biol.*, **327**, 149-157.

Ceugniet, M. & Izumi, A. (2004). Vocal individual discrimination in Japanese monkeys. *Primates*, **45**, 119-128.

Cheung, S. W., Nagarajan, S. S., Schreiner, C. E., Bedenbaugh, P. H. & Wong, A. (2005). Plasticity in primary auditory cortex of monkeys with altered vocal production. *J. Neurosci.*,

**25**, 2490-2503.

Corballis, M. C. (2004). Mirror neurons for vocalization in the monkey? Reply to Bosman et al. *Trends Cogn. Sci.*, **8**, 252.

Crockford, C. & Boesch, C. (2005). Call combinations in wild chimpanzees. *Behaviour*, **142**, 397-421.

Cross, N. & Rogers, L. J. (2006). Mobbing vocalizations as a coping response in the common marmoset. *Horm. Behav.*, **49**, 237-245.

Cunha, R. G. T. da & Byrne, R. W. (2006). Roars of black howler monkeys (*Alouatta caraya*): evidence for a function in inter-group spacing. *Behaviour*, **143**, 1169-1199.

Delgado, R. A. (2006). Sexual selection in the loud calls of male primates: Signal content and function. *Int. J. Primatol.*, **27**, 5-25.

Di Bitetti, M. S. (2001). Food-associated calls in tufted capuchin monkeys (*Cebus apella*). Ph.D. thesis. State University of New York at Stony Brook.

Di Bitetti, M. S. (2005). Food-associated calls and audience effects in tufted capuchin monkeys, *Cebus apella nigritus*. *Anim. Behav.*, **69**, 911-919.

DiMattina, C. & Wang, X. Q. (2006). Virtual vocalization stimuli for investigating neural representations of species-specific vocalizations. *J. Neurophysiol.*, **95**, 1244-1262.

Digweed, S. M., Fedigan, L. M. & Rendall, D. (2005). Variable specificity in the anti-predator vocalizations and behaviour of the white-faced capuchin, *Cebus capucinus*. *Behaviour*, **142**, 1003-1027.

Dujardin, E. & Juergens, U. (2005). Afferents of vocalization-controlling periaqueductal regions in the squirrel monkey. *Brain Res.*, **1034**, 114-131.

Dujardin, E. & Juergens, U. (2006). Call type-specific differences in vocalization-related afferents to the periaqueductal gray of squirrel monkeys (*Saimiri sciureus*). *Behav. Brain Res.*, **168**, 23-36.

Egnor, S. E. R., Iguina, C. G. & Hauser, M. D. (2006). Perturbation of auditory feedback causes systematic perturbation in vocal structure in adult cotton-top tamarins. *J. Exp. Biol.*, **209**, 3652-3663.

Eliades, S. J. & Wang, X. Q. (2005). Dynamics of auditory-vocal interaction in monkey auditory cortex. *Cerebral Cortex*, **15**, 1510-1523.

Engh, A. L., Hoffmeier, R. R., Cheney, D. L. & Seyfarth, R. M. (2006). Who, me? Can baboons infer the target of vocalizations? *Anim. Behav.*, **71**, 381-387.

Fichtel, C. & van Schaik, C. P. (2006). Semantic differences in sifaka (*Propithecus verreauxi*) alarm calls: A reflection of genetic or cultural variants? *Ethology*, **112**, 839-849.

Fichtel, C., Perry, S. & Gros-Louis, J. (2005). Alarm calls of white-faced capuchin monkeys: an acoustic analysis. *Anim. Behav.*, **70**, 165-176.

Fitch, W. T. & Fritz, J. B. (2006). Rhesus macaques spontaneously perceive formants in conspecific vocalizations. *J. Acoust. Soc. Am.*, **120**, 2132-2141.

Gamba, M. & Giacoma, C. (2006). Vocal tract modeling in a prosimian primate: The black and white ruffed lemur. *Acustica*, **92**, 749-755.

Geissmann, T. & Nijman, V. (2006). Calling in wild silvery gibbons (*Hylobates moloch*) in Java (Indonesia): Behavior, phylogeny, and conservation. *Am. J. Primatol.*, **68**, 1-19.

Geissmann, T., Bohlen-Eyring, S. & Heuck, A. (2005). The male song of the Javan silvery gibbon (*Hylobates moloch*). *Contrib. Zool.*, **74**, 1-25.

Gifford, G. W., MacLean, K. A., Hauser, M. D. & Cohen, Y. E. (2005). The neurophysiology of functionally meaningful categories: Macaque ventrolateral prefrontal cortex plays a critical role in spontaneous categorization of species-specific vocalizations. *J. Cogn. Neurosci.*, **17**, 1471-1482.

Gil-Da-Costa, R., Braun, A., Lopes, M., Hauser, M. D., Carson, R. E., Herscovitch, P. & Martin, A. (2004). Toward an evolutionary perspective on conceptual representation: Species-specific calls activate visual and affective processing systems in the macaque. *Proc. Natl. Acad. Sci. USA*, **101**, 17516-17521.

Gil-Da-Costa, R., Martin, A., Lopes, M. A., Munoz, M., Fritz, J. B. & Braun, A. R. (2006). Species-specific calls activate homologs of Broca's and Wernicke's areas in the macaque. *Nature Neurosci.*, **9**, 1064-1070.

Gil-da-Costa, R. & Hauser, M. D. (2006). Vervet monkeys and humans show brain asymmetries for processing conspecific vocalizations, but with opposite patterns of laterality. *Proc. R. Soc. B.*, **273**, 2313-2318.

Gros-Louis, J. (2006). Acoustic analysis and contextual description of food-associated calls in white-faced capuchin monkeys (*Cebus capucinus*). *Int. J. Primatol.*, **27**, 273-294.

Hage, S. R. & Juergens, U. (2006). On the role of the pontine brainstem in vocal pattern generation: A telemetric single-unit recording study in the squirrel monkey. *J. Neurosci.*, **26**, 7105-7115.

Hage, S. R. & Juergens, U. (2006). Localization of a vocal pattern generator in the pontine brainstem of the squirrel monkey. *Eur. J. Neurosci.*, **23**, 840-844.

Hage, S. R., Juergens, U. & Ehret, G. (2006). Audio-vocal interaction in the pontine brainstem during self-initiated vocalization in the squirrel monkey. *Eur. J. Neurosci.*, **23**, 3297-3308.

Hannig, S. & Juergens, U. (2006). Projections of the ventrolateral pontine vocalization area in the squirrel monkey. *Exp. Brain Res.*, **169**, 92-105.

Harris, T. R. (2006). Within- and among-male variation in roaring by black and white colobus monkeys (*Colobus guereza*): What does it reveal about function? *Behaviour*, **143**, 197-218.

Harris, T. R., Fitch, W. T., Goldstein, L. M. & Fashing, P. J. (2006). Black and white colobus monkey (*Colobus guereza*) roars as a source of both honest and exaggerated information about body mass. *Ethology*, **112**, 911-920.

Hauser, M. D. & Dermott, J. (2004). The evolution of the music faculty: comparative perspective. *Nature Neurosci.*, **6**, 663-668.

Hide, Y., Iumi, A., Hashiya, K. & Hasegawa, T. (2004). Recognition of emotion in chimpanzee (*Pan troglodytes*) vocalizations and facial expressions by chimpanzees and humans (*Homo sapiens*). *Int. J. Psychol.*, **39**, 139 Suppl. S.

Hienz, R. D. & Weerts, E. M. (2005). Cocaine's effects on the perception of socially significant vocalizations in baboons. *Pharm. Biochem. Behav.*, **81**, 440-450.

Hienz, R. D., Jones, A. M. & Weerts, E. M. (2004). The discrimination of baboon grunt calls and human vowel sounds by baboons. *J. Acoust. Soc. Am.*, **116**, 1692-1697.

Hsu, M. J., Chen, L. M. & Agoramoorthy, G. (2005). The vocal repertoire of Formosan macaques, *Macaca cyclopis*: Acoustic structure and behavioral context. *Zool. Stud.*, **44**, 275-294.

Izumi, A. & Kojima, S. (2004). Matching vocalizations to vocalizing faces in a chimpanzee (*Pan troglodytes*). *Animal Cogn.*, **7**, 179-184.

Kirchhof, J. & Hammerschmidt, K. (2006). Functionally referential alarm calls in tamarins (*Saguinus fuscicollis* and *Saguinus mystax*) - evidence from playback experiments. *Ethology*, **112**, 346-354.

Kitchen, D. M. (2006). Experimental test of female black howler monkey (*Alouatta pigra*) responses to loud calls from potentially infanticidal males: Effects of numeric odds, vulnerable offspring, and companion behavior. *Am. J. Phys. Anthropol.*, **131**, 73-83.

Kitchen, D. M., Cheney, D. L. & Seyfarth, R. M. (2005). Male chacma baboons (*Papio hamadryas ursinus*) discriminate loud call contests between rivals of different relative ranks. *Anim. Cogn.*, **8**, 1-6.

Koda, H. (2004). Flexibility and context-sensitivity during the vocal exchange of coo calls in wild Japanese macaques (*Macaca fuscata yakui*). *Behaviour*, **141**, 1279-1296.

Konrad, R. & Geissmann, T. (2006). Vocal diversity and taxonomy of *Nomascus* in Cambodia. *Int. J. Primatol.*, **27**, 713-745.

Laidre, M. E. (2006). Manipulation without mind-reading: information suppression and leakage during food discovery by mandrills (*Mandrillus sphinx*). *Behaviour*, **143**, 365-392.

Leavens, D. A. (2003). Integration of visual and vocal communication: Evidence for Miocene

origins. *Behav. Brain Sci.*, **26**, 232-233.

Lemasson, A. & Hausberger, M. (2004). Patterns of vocal sharing and social dynamics in a captive group of Campbell's monkeys (*Cercopithecus campbelli campbelli*). *J. Comp. Psychol.*, **118**, 347-359.

Lemasson, A., Gautier, J.-P. & Hausberger, M. (2003). Vocal similarities and social bonds in Campbell's monkey (*Cercopithecus campbelli*). *Compt. Rendus Biol.*, **326**, 1185-1193.

Lemasson, A., Hausberger, M. & Zuberbuehler, K. (2005). Socially meaningful vocal plasticity in adult Campbell's monkeys (*Cercopithecus campbelli*). *J. Comp. Psychol.*, **119**, 220-229.

Lieberman, P. (2006). Limits on tongue deformation - Diana monkey formants and the impossible vocal tract shapes proposed by Riede et al. (2005). *J. Human Evol.*, **50**, 219-221.

Maestripieri, D. & Roney, J. R. (2005). Primate copulation calls and postcopulatory female choice. *Behav. Ecol.*, **16**, 106-113.

Maestripieri, D., Leoni, M., Raza, S. S., Hirsch, E. J. & Whitham, J. C. (2005). Female copulation calls in guinea baboons: Evidence for postcopulatory female choice? *Int. J. Primatol.*, **26**, 737-758.

Matsumoto-Oda, A. & Tomonaga, M. (2005). 'Intentional' control of sound production found in leaf-clipping display of Mahale chimpanzees. *J. Ethol.*, **23**, 109-112.

McComb, K. & Semple, S. (2005). Coevolution of vocal communication and sociality in primates. *Biology Lett.*, **1**, 381-385.

Merker, S. & Groves, C. P. (2006). *Tarsius lariang*: A new primate species from western central Sulawesi. *Int. J. Primatol.*, **27**, 465-485.

Miller, C. T. & Wang, X. Q. (2006). Sensory-motor interactions modulate a primate vocal behavior: antiphonal calling in common marmosets. *J. Comp. Physiol. A.*, **192**, 27-38.

Miller, C. T., Iguina, C. G. & Hauser, M. D. (2005). Processing vocal signals for recognition during antiphonal calling in tamarins. *Anim. Behav.*, **69**, 1387-1398.

Miller, C. T., Scarl, J. & Hauser, M. D. (2004). Sensory biases underlie sex differences in tamarin long call structure. *Anim. Behav.*, **68**, 713-720.

Mothe, L. A. de la, Blumell, S., Kajikawa, Y. & Hackett, T. A. (2006). Cortical connections of the auditory cortex in marmoset monkeys: Core and medial belt regions. *J. Comp. Neurol.*, **496**, 27-71.

Nishimura, T. (2005). Developmental changes in the shape of the supralaryngeal vocal tract in chimpanzees. *Am. J. Phys. Anthropol.*, **126**, 193-204.

Nishimura, T., Mikami, A., Suzuki, J. & Matsuzawa, T. (2006). Descent of the hyoid in

- chimpanzees: evolution of face flattening and speech. *J. Human Evol.*, **51**, 244-254.
- Notman, H. & Rendall, D. (2005). Contextual variation in chimpanzee pant hoots and its implications for referential communication. *Anim. Behav.*, **70**, 177-190.
- Parr, L. A., Waller, B. M. & Fugate, J. (2005). Emotional communication in primates: implications for neurobiology. *Curr. Opin. Neurobiol.*, **15**, 716-720.
- Petkov, C. I., Kayser, C., Augath, M. & Logothetis, N. K. (2006). Functional imaging reveals numerous fields in the monkey auditory cortex. *PLOS Biol.*, **4**, 1213-1226.
- Pfefferle, D. & Fischer, J. (2006). Sounds and size: identification of acoustic variables that reflect body size in hamadryas baboons, *Papio hamadryas*. *Anim. Behav.*, **72**, 43-51.
- Phillips, K. A., Goodchild, L. M. S., Haas, M. E., Ulyan, M. J. & Petro, S. (2004). Use of visual, acoustic, and olfactory information during embedded invertebrate foraging in brown capuchins (*Cebus apella*). *J. Comp. Psychol.*, **118**, 200-205.
- Pistorio, A. L., Vintch, B. & Wang, X. Q. (2006). Acoustic analysis of vocal development in a New World primate, the common marmoset (*Callithrix jacchus*). *J. Acoust. Soc. Am.*, **120**, 1655-1670.
- Pollick, A. S., Gouzoules, H. & de Waal, F. B. M. (2005). Audience effects on food calls in captive brown capuchin monkeys, *Cebus apella*. *Anim. Behav.*, **70**, 1273-1281.
- Populin, L. C. (2006). Monkey sound localization: Head-restrained versus head-unrestrained orienting. *J. Neurosci.*, **26**, 9820-9832.
- Poremba, A. (2006). Auditory processing and hemispheric specialization in non-human primates. *Cortex*, **42**, 87-89.
- Pradhan, G. R., Engelhardt, A., van Schaik, C. P. & Maestripieri, D. (2006). The evolution of female copulation calls in primates: a review and a new model. *Behav. Ecol. Sociobiol.*, **59**, 333-343.
- Ramos-Fernandez, G. (2005). Vocal communication in a fission-fusion society: Do spider monkeys stay in touch with close associates? *Int. J. Primatol.*, **26**, 1077-1092.
- Rasoloharijaona, S., Randrianambinina, B., Braune, P. & Zimmermann, E. (2006). Loud calling, spacing, and cohesiveness in a nocturnal primate, the Milne Edwards' sportive lemur (*Lepilemur edwardsi*). *Am. J. Phys. Anthropol.*, **129**, 591-600.
- Rendall, D., Kollias, S., Ney, C. & Lloyd, P. (2005). Pitch (F0) and formant profiles of human vowels and vowel-like baboon grunts: The role of vocalizer body size and voice-acoustic allometry. *J. Acoust. Soc. Am.*, **117**, 944-955.
- Riede, T., Bronson, E., Hatzikirou, H. & Zuberbuehler, K. (2005). Vocal production mechanisms in a non-human primate: morphological data and a model. *J. Human Evol.*, **48**, 85-96.

- Riede, T., Bronson, E., Hatzikirou, H. & Zuberbuehler, K. (2006). Multiple discontinuities in nonhuman vocal tracts - A response to Lieberman (2006). *J. Human Evol.*, **50**, 222-225.
- Romanski, L. M., Averbeck, B. B. & Diltz, M. (2005). Neural representation of vocalizations in the primate ventrolateral prefrontal cortex. *J. Neurophysiol.*, **93**, 734-747.
- Rukstalis, M. & French, J. A. (2005). Vocal buffering of the stress response: exposure to conspecific vocalizations moderates urinary cortisol excretion in isolated marmosets. *Horm. Behav.*, **47**, 1-7.
- Santos, L. R., Nissen, A. G. & Ferrugia, J. A. (2006). Rhesus monkeys, *Macaca mulatta*, know what others can and cannot hear. *Anim. Behav.*, **71**, 1175-1181.
- Savage-Rumbaugh, S., Fields, W. M. & Spircu, T. (2004). The emergence of knapping and vocal expression embedded in a *Pan/Homo* culture. *Biology and Philosophy*, **19**, 541-575.
- Schnupp, J. W. H., Hall, T. M., Kokelaar, R. F. & Ahmed, B. (2006). Plasticity of temporal pattern codes for vocalization stimuli in primary auditory cortex. *J. Neurosci.*, **26**, 4785-4795.
- Scott, J. J., Carlson, K. L. & Snowdon, C. T. (2006). Labile sex differences in long calling in cotton-top tamarins. *Am. J. Primatol.*, **68**, 153-160.
- Shizawa, Y., Nakamichi, M., Hinobayashi, T. & Minami, T. (2005). Playback experiment to test maternal responses of Japanese macaques (*Macaca fuscata*) to their own infant's call when the infants were four to six months old. *Behav. Processes*, **68**, 41-46.
- Su, Y. J. & Chen, B. (2004). Vocal communication of Sichuan golden monkey. *Int. J. Psychol.*, **39**, 138 Suppl. S.
- Sugiura, H., Tanaka, T. & Masataka, N. (2006). Sound transmission in the habitats of Japanese macaques and its possible effect on population differences in coo calls. *Behaviour*, **143**, 993-1012.
- Tammer, R., Ehrenreich, L. & Juergens, U. (2004). Telemetrically recorded neuronal activity in the inferior colliculus and bordering tegmentum during vocal communication in squirrel monkeys (*Saimiri sciureus*). *Behav. Brain Res.*, **151**, 331-336.
- Tanaka, T., Sugiura, H. & Masataka, N. (2006). Cross-sectional and longitudinal studies of the development of group differences in acoustic features of coo calls in two groups of Japanese macaques. *Ethology*, **112**, 7-21.
- Trillmich, J., Fichtel, C. & Kappeler, P. M. (2004). Coordination of group movements in wild Verreauxs sifakas (*Propithecus verreauxi*). *Behaviour*, **141**, 1103-1120.
- Vettin, J. & Todt, D. (2005). Human laughter, social play, and play vocalizations of non-human primates: an evolutionary approach. *Behaviour*, **142**, 217-240.
- Wich, S. A. & de Vries, H. (2006). Male monkeys remember which group members have given alarm calls. *Proc. R. Soc. B.*, **273**, 735-740.

Yi, L. L., Su, Y. J., Qiu, J. H., Xia, S. Z. & Liu, X. C. (2004). The role of sex in Sichuan golden monkey's threat calls. *Int. J. Psychol.*, **39**, 73 Suppl. S.

Zuberbuehler, K. (2006). Language evolution: The origin of meaning in primates. *Curr. Biol.*, **16**, R123-R125.