

## REFERENCES

- ALLARD, M.W., & R.L. HONEYCUTT. 1992. Nucleotide sequence variation in the mitochondrial 12S rRNA gene and the polyphyly of African mole-rats (Rodentia: Bathyergidae). *Mol. Biol. Evol.* 9:27-40.
- ALLARD, M.W., M. MIYAMOTO, L. JARECKI, F. KRAUS, & M. TENNANT. 1992. DNA systematics and evolution of the artiodactyl family Bovidae. *Proc. Natl. Acad. Sci. USA* 89:3972-3976.
- AMOS, B., & A.R. HOELZEL. 1991. Longterm preservation of whale skin for DNA analysis. *Rep. Int. Whaling Comm.* 13:99-104.
- ANDERSON, S., M.H.L. DE BRUIJN, A.R. COULSON, I.C. EPERON, F. SANGER, & I.G. YOUNG. 1982. Complete sequence of bovine mitochondrial DNA: Conserved features of the mammalian mitochondrial genome. *J. Mol. Biol.* 156:683-717.
- ANON. 1965. Duiker hybrid (*Cephalophus nigrifrons* x *Sylvicapra grimmia*). *S.A. Internatl. Zoo Yearbook* 5:347.
- ANSELL, W.F.H. 1971. Family Artiodactyla. Pages 15-83 in *The mammals of Africa: An identification manual* (J. Meester & H.W. Setzer, eds.). Smithsonian Institute Press, Washington, D.C.
- ARCTANDER, P. 1995. Comparison of a mitochondrial gene and a corresponding nuclear pseudogene. *Proc. R. Soc. Lond.* 262:13-19.
- ARNHEIM, N. 1983. Concerted evolution of multigene families. Pages 38-61 in *Evolution of Genes and Proteins* (M. Nei & R.K. Koehn, eds.). Sinauer, Sunderland.
- AUSTIN, J.J., A.B. SMITH, & R.H. THOMAS. 1997. Palaeontology in a molecular world: The search for authentic ancient DNA. *Trends Ecol. Evol.* 12:303-306.

- AVISE, J.C. 1991. Ten unorthodox perspectives on evolution prompted by comparative population genetic findings on mitochondrial DNA. *Ann. Rev. Genet.* 25:45-69.
- AVISE, J.C. 1994. *Molecular Markers, Natural History and Evolution*. Chapman Hall, New York.
- AVISE, J.C., & R.M. BALL. 1990. Principles of genealogical concordance in species concepts and biological taxonomy. *Oxford Surv. Evol. Biol.* 7:45-67.
- AVISE, J.C., & R.A. LANSMAN. 1983. Polymorphism of mitochondrial DNA in populations of higher animals. Pages 147-164 in *Evolution of Genes and Proteins* (M. Nei & R.K. Koehn, eds.). Sinauer, MA.
- AVISE, J.C., & R.C. VRIJENHOEK. 1987. Mode of inheritance and variation of mitochondrial DNA in hybridogenetic fishes of the genus *Poeciliopsis*. *Mol. Biol. Evol.* 4:514-525.
- BIGALKE, R.C. 1972. The contemporary mammal fauna of Africa. Pages 141-189 in *Evolution, Mammals and Southern Continents* (A. Keast, F.C. Erk, & B. Glass, eds.). State University of New York Press, Albany.
- BLYTH, E. 1840. Page 40 in *Cuvier's Animal Kingdom*. Wm. S. Orr and Co. London.
- BOAZ, N.T. 1985. Palaeoecology and hominoid evolution at the Mio-Pliocene boundary. *S.A.J. Sci.* 81:259.
- BOEHM, T., & M. NEHLS. 1995. A rapid and efficient alternative to sonication in shotgun sequencing projects. *Trends Genet.* 11:39.
- BUCKLAND, R.A., & H.J. EVANS. 1978. Cytogenetic aspects of phylogeny in the Bovidae. I. G-banding. *Cytogenet. Cell Genet.* 21:42-63.
- BULL, J.J., J.P. HUELSENBECK, C.W. CUNNINGHAM, D.L. SWOFFORD, & P.J. WADDELL. 1993. Partitioning and combining data in phylogenetic analysis. *Syst. Biol.* 42:384-397.

- BUONGIORNO-NARDELLI, M., & F. AMALDI. 1969. Autoradiographic detection of molecular hybrids between rRNA and DNA in tissue sections. *Nature* 225:946-947.
- CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES. 1991. Appendices I, II, and III to The Convention on International Trade in Endangered Species of Wild Fauna and Flora. US Government Printing Office, Washington, D.C.
- COOKE, H.B.S. 1978. Africa: The physical setting. Pages 17-39 in *Evolution of African mammals* (V.J. Maglio & H.B.S. Cooke, eds.). Harvard University Press, Cambridge.
- DA SILVA, M.N.F., & J.L. PATTON. 1993. Amazonian phylogeography: MtDNA sequence variation in arboreal Echimyid rodents (Caviomorpha). *Mol. Phylogenet. Evol.* 2:243-255.
- DEBRY, R.W. 1992. The consistency of several phylogeny inference methods under varying evolutionary rates. *Mol. Biol. Evol.* 9:537-551.
- DE QUEIROZ, A., M.J. DONAGHUE, & J. KIM. 1995. Separate versus combined analysis of phylogenetic evidence. *Annu. Rev. Ecol. Syst.* 26:657-681.
- DIXON, M.T., & D.M. HILLIS. 1993. Ribosomal RNA secondary structure: Compensatory mutations and implications for phylogeny analysis. *Mol. Biol. Evol.* 10:256-276.
- DOBZHANSKY, T. 1970. *Genetics of the Evolutionary Process*. Columbia University Press, New York.
- DOVER, G.A. 1982. Molecular drive: A cohesive mode of species evolution. *Nature* 289:111-117.
- DUBOST, G. 1968. Les niches écologiques des forêts tropicales sud-américaines et africaines sources de convergences remarquables entre rongeurs et artiodactyles. *Terre et Vie* 1:3-28.



- EFRON, B. 1979. Bootstrapping methods: Another look at the jackknife. *Ann. Stat.* 7:1-26.
- EFRON, B. 1985. Bootstrap confidence intervals for a class of parametric problems. *Biometrika* 72:45-58.
- ELLERMAN, J.R., T.C.S. MORRISON-SCOTT, & R.W. HAYMAN. 1953. *Southern African Mammals 1758 to 1951: A reclassification*. British Museum, London.
- ELTRINGHAM, S.K. 1979. *The Ecology and Conservation of Large African Mammals*. MacMillan Press Ltd, London.
- FAITH, D.P., & P.S. CRANSTON. 1991. Could a cladogram this short have arisen by chance alone? On permutation tests for cladistic structure. *Cladistics* 7:1-28.
- FAN, Y., L.M. DAVIS, & T.B. SHOWS. 1990. Mapping small DNA sequences by fluorescence *in situ* hybridization directly on banded metaphase chromosomes. *Proc. Natl. Acad. Sci. USA* 87:6223-6227.
- FARRIS, J.S., M. KÄLLERSJO, A.G. KLUGE, & C. BULT. 1995. Constructing a significance test for incongruence. *Syst. Biol.* 44:570-572.
- FEINBERG, A.P., & B. VOGELSTEIN. 1983. A technique for radiolabelling DNA restriction endonuclease fragments to high specific activity. *Analyt. Biochem.* 132:6-13.
- FELSENSTEIN, J. 1978. Cases in which parsimony and compatibility methods will be positively misleading. *Syst. Zool.* 27:401-410.
- FELSENSTEIN, J. 1981. Evolutionary trees from DNA sequences: A maximum likelihood approach. *J. Mol. Evol.* 17:368-376.
- FELSENSTEIN, J. 1985. Confidence limits on phylogenies: An approach using the bootstrap. *Evolution* 39:783-791.
- FELSENSTEIN, J. 1988. Phylogenies from molecular sequences: Inference and reliability. *Ann. Rev. Genet.* 22:521-565.

- FORD, C.E., D.L. POLLOCK, & I. GUSTAVSSON. 1980. Proceedings of the First International Conference for the Standardisation of Banded Karyotypes of Domestic Animals. *Hereditas* 92:145-162.
- FROST, D.R., & D.M. HILLIS. 1990. Species in concept and practice: Herpetological applications. *Herpetologica* 46:87-104.
- FRYE, M.S., & S.B. HEDGES. 1995. Monophyly of the order Rodentia inferred from mitochondrial DNA sequences of the genes for 12S rRNA, 16S rRNA, and tRNA-valine. *Mol. Biol. Evol.* 12:168-176.
- GALL, G., & M.L. PARDUE. 1969. Formation and detection of RNA-DNA hybrid molecules in cytological preparations. *Proc. Natl. Acad. Sci. USA* 63:378-381.
- GALLAGHER, D.S., J.N. DERR, & J.E. WOMACK. 1994. Chromosome conservation among the advanced pecorans and determination of the primitive bovid karyotype. *J. Hered.* 85:204-210.
- GALLAGHER, D.S., & J.E. WOMACK. 1992. Chromosome conservation in the Bovidae. *J. Hered.* 83:287-298.
- GATESY, J., G. AMOTO, E.S. VRBA, G. SCHALLER, & R. DESALLE. 1997. A cladistic analyses of mitochondrial ribosomal DNA from the Bovidae. *Mol. Phylogenet. Evol.* 7:303-319.
- GATESY, J., D. YELON, R. DESALLE, & E.S. VRBA. 1992. Phylogeny of the Bovidae (Artiodactyla, Mammalia), based on mitochondrial ribosomal DNA sequences. *Mol. Biol. Evol.* 9:433-446.
- GENTRY, A.W. 1978. *Evolution of African Mammals*. Harvard University Press, Cambridge, MA.
- GENTRY, A.W. 1992. The subfamilies and tribes of the family Bovidae. *Mammal Rev.* 22:1-32.

- GEORGIADIS, N.J., P.W. KAT, H. OKETCH, & J. PATTON. 1990. Allozyme divergence within the Bovidae. *Evolution* 44:2135-2149.
- GILLESPIE, J.H. 1986. Variability of evolutionary rates of DNA. *Genetics* 113:1077-1091.
- GRIFFITHS, C.S. 1997. Correlation of functional domains and rates of nucleotide substitution in cytochrome *b*. *Mol. Phylogenet. Evol.* 7:352-365.
- GROVES, C., & P. GRUBB. 1974. A new duiker from Rwanda (Mammalia, Bovidae). *Rev. Zool. Afr.* 88:189-196.
- GROVES, C., & P. GRUBB. 1981. A systematic review of duikers (Cephalophini, Artiodactyla). *African Small Mammals Newsletter* 4:35.
- GROVES, P., & G.F. SHIELDS. 1996. Phylogenetics of the Caprinae based on cytochrome *b* sequence. *Mol. Phylogenet. Evol.* 5:467-476.
- GRUBB, P. 1978. Patterns of speciation in African Mammals. *Bull. Carnegie Mus. Nat. Hist.* 6:152-165.
- GRUBB, P. 1982. Refuges and dispersal in the speciation of African forest mammals. Pages 537-553 in *Biological diversification in the tropics: Proceedings of the Fifth International Symposium of the Association for Tropical Biology* (G.T. Prance, ed.). Columbia University Press, New York.
- GRUBB, P. 1993. Pages 410-412 in *Mammal Species of the World: A Taxonomic and Geographic Reference* (D.E. Wilson & D.M. Reeder, eds.). Smithsonian Institution Press, Washington, DC.
- GYLLENSTEN, U.B., D. WHARTON, A. JOSEFSSON, & A.C. WILSON. 1991. Parental inheritance of mitochondrial DNA in mice. *Nature* 352:255-257.
- GYLLENSTEN, U.B., D. WHARTON, & A.C. WILSON. 1985. Maternal inheritance of mitochondrial DNA during backcrossing of two species of mice. *J. Heredity* 76:321-324.



- HACKETT, S.J. 1996. Molecular phylogenetics and biogeography of tanagers in the genus *Ramphocelus* (Aves). *Mol. Phylogenet. Evol.* 5:368-382.
- HAGELBERG, E. 1994. Mitochondrial DNA from ancient bones. Pages 195-204 in *Ancient DNA* (B. Herrmann & S. Hummel, eds.). Springer, New York.
- HALANYCH, K.M. 1996. Testing hypothesis of chaetognath origins: Long branches revealed by 18S rDNA. *Syst. Biol.* 45:223-246.
- HALANYCH, K.M., & T.J. ROBINSON. 1999. Multiple substitutions affect the phylogenetic utility of cytochrome *b* and 12S rDNA data: Examining a rapid radiation in leporid (Lagomorpha) evolution. *J. Mol. Evol.* 48:369-379.
- HALTENORTH, T. 1963. Klassifikation der Säugetiere: Artiodactyla. In: *Handbuch der Zoologie* 1:1-167
- HALTENORTH, T., & H. DILLER. 1986. Pages 39-47 in *A field guide to the Mammals of Africa, including Madagascar*. Collins, London.
- HAMILTON, A.C. 1982. *Environmental history of east Africa: A study of the Quaternary*. Academic Press, London.
- HAMILTON, M.J., R.L. HONEYCUTT, & R.J. BAKER. 1990. Intragenomic movement, sequence amplification and concerted evolution in satellite DNA in harvest mice, *Reithrodontomys*: Evidence from *in situ* hybridization. *Chromosoma* 99:321-329.
- HAPPOLD, D.C.D. 1973. *Large Mammals of West Africa*. Longman.
- HARD, W.L. 1969. The chromosomes of duikers. *Mamm. Chrom. Newsletter* 10:216-217.
- HARRISON, R.G. 1989. Animal mitochondrial DNA as a genetic marker in population and evolutionary biology. *Trends Ecol. Evol.* 4:6-11.
- HARRISON, R.G. 1991. Molecular changes at speciation. *Ann. Rev. Ecol. Syst.* 22:281-308.

- HASEGAWA, M., H. KISHINO, & T. YANO. 1985. Dating of the human-ape splitting by a molecular clock of mitochondrial DNA. *J. Mol. Evol.* 21:160-174.
- HASSANIN, A., & E.J.P. DOUZERY. 1999. Evolutionary affinities of the enigmatic saola (*Pseudoryx nghetinhensis*) in the context of the molecular phylogeny of Bovidae. *Proc. R. Soc. Lond. B* 266:893-900.
- HEDGES, S.B., & L.R. MAXSON. 1996. Re: Molecules and morphology in Amniote Phylogeny. *Mol. Phylogenet. Evol.* 6:312-319.
- HEYDEN, K. 1968. Studien zur systematik von Cephalophinae Brooke 1879; Reduncini Simpson 1945 und Peleini Sokolov, 1953. *Z. Wiss. Zool.* 178:348-441.
- HILLIS, D.M. 1987. Molecular versus morphological approaches to systematics. *Ann. Rev. Ecol. Syst.* 18:23-42.
- HILLIS, D.M. 1991. Discriminating between phylogenetic signal and random noise in DNA sequences. Pages 278-294 in *Phylogenetic analysis of DNA sequences* (M.M. Miyamoto & J. Cracraft, eds.). Oxford University Press, New York.
- HILLIS, D.M., & M.T. DIXON. 1991. Ribosomal DNA: Molecular evolution and phylogenetic inference. *Quart. Rev. Biol.* 66:411-453.
- HILLIS, D.M., & J.P. HUELSENBECK. 1992. Signal, noise, and reliability in molecular phylogenetic analyses. *J. Hered.* 83:189-195.
- HOUSEAL, T.W., J.A. COOK, W.S. MODI, & D.W. HALE. 1995. Identification of highly conserved loci by genome painting. *Chromosoma* 3:175-181.
- HUELSENBECK, J.P. 1995. Performance of phylogenetic methods in simulation. *Syst. Biol.* 44:17-48.
- HUELSENBECK, J.P., D.M. HILLIS, & R. JONES. 1996. Parametric bootstrapping in molecular phylogenetics: Applications and performance. Pages 19-45 in *Molecular Zoology*:



*Advances, strategies, and protocols* (J.D. Ferraris & S.R. Palumbi, eds.). Wiley-Liss, New York.

HUELSENBECK, J.P., D.L. SWOFFORD, C.W. CUNNINGHAM, J.J. BULL, & P.W. WADDELL. 1994. Is character weighting a panacea for the problem of data heterogeneity in phylogenetic analysis? *Syst. Biol.* 43:288-291.

INTERNATIONAL UNION FOR THE CONSERVATION OF NATURE AND NATURAL RESOURCES. 1990. 1990 IUCN red list of threatened animals. Gland, Switzerland.

IRWIN, D.M., T.D. KOCHER, & A.C. WILSON. 1991. Evolution of cytochrome *b* gene of mammals. *J. Mol. Evol.* 32:128-144.

JANSEN VAN VUUREN, B., & T.J. ROBINSON. 1997. Genetic population structure in the yellow mongoose, *Cynictus penicillata*. *Mol. Ecol.* 6:1147-1153.

JOHN, H.L., M.L. BIRNSTIEL, & K.W. JONES. 1969. RNA-DNA hybrids at the cytological level. *Nature* 223:912-913.

KINGDON, J. 1982. Pages 263-327 in *East African mammals: An atlas of evolution in Africa*. Volume III C. Academic Press.

KINGDON, J. 1997. Pages 367-382 in *The Kingdon field guide to African mammals*. Academic Press.

KLUGE, A.G. 1989. A concern for evidence and a phylogenetic hypothesis of relationships among *Epicrates* (Boidae, Serpentes). *Syst. Zool.* 38:7-25.

KLUGE, A.G., & A.J. WOLF. 1993. Cladistics: What's in a name? *Cladistics* 9:183-199.

KOCHER, T.D., W.K. THOMAS, A. MEYER, S.V. EDWARDS, S. PÄÄBO, F.X. VILLABLANCA, & A.C. WILSON. 1989. Dynamics of mitochondrial DNA evolution in animals: Amplification and sequencing with conserved primers. *Proc. Natl. Acad. Sci. USA* 86:6196-6200.

- KOULISCHER, L.J., J. TIJSKENS, & J. MORTELMANS. 1967. Mammalian cytogenetics. I. The chromosomes of three species of Bovidae: *Bos taurus*, *Bison bonasus* and *Cephalophus grimmi*. *Acta Zool path Antverpiensia* 43:135-141.
- KRAJEWSKI, C., & D.G. KING. 1996. Molecular divergence and phylogeny: Rates and patterns of cytochrome *b* evolution in cranes. *Mol. Biol. Evol.* 13:21-30.
- KRAUS, F., & M.M. MIYAMOTO. 1991. Rapid cladogenesis among the pecoran ruminants: Evidence from mitochondrial DNA sequences. *Syst. Zool.* 40:117-130.
- KUHN, H.J. 1966. Der zebraducker, *Cephalophus doria* (Ogilby, 1837). *Z. Säugetierkunde* 31:282-293.
- LANSMAN, R.A., J.C. AVISE, C.F. AQUADRO, J.F. SHAPIRA, & S.W. DANIEL. 1983. Extensive genetic variation in mitochondrial DNAs among geographic populations of the deer mouse, *Peromyscus maniculatus*. *Evolution* 37:1-16.
- LICHTER, P. & D.C. WARD. 1990. Is nonisotopic *in situ* hybridization finally coming of age? *Nature* 345:93-94.
- LIVINGSTONE, D.A. 1975. Late quaternary climatic change in Africa. *Ann. Rev. Ecol. Syst.* 6:249-280.
- LIVINGSTONE, D.A. 1982. Quaternary geography of Africa and the refuge theory. Pages 523-536 in *Biological diversification in the tropics: Proceedings of the 5th International Symposium of the Association for Tropical Biology* (G.T. Prance, ed.). Columbia University Press, New York.
- LOVETT, J.C. 1993. Climatic history and forest distribution in eastern Africa. Pages 23-32 in *Biogeography and ecology of the rain forests of eastern Africa* (J.C. Lovett & S.K. Wasser, eds.). Cambridge University Press, United Kingdom.
- LYDEKKER, R., & G. BLAINE. 1914. Catalogue of the ungulate mammals in the British Museum. *British Mus. (Nat. Hist.)* 2:xvi.

- MADDISON, W.P., & D.R. MADDISON. 1992. *MacClade: Analysis of phylogeny and character evolution*, version 3. Sinauer, Sunderland, MA.
- MANIATIS, T., E.F. FRITSCH, & J. SAMBROOK. 1982. *Molecular cloning: A laboratory manual*. Cold Spring Harbor Laboratory, USA.
- MARTIN, A.P., & S.R. PALUMBI. 1993. Body size, metabolic rate, generation time, and the molecular clock. *Proc. Natl. Acad. Sci. USA* 90:4087-4091.
- MATTHEE, C.A., & T.J. ROBINSON. 1997. Molecular phylogeny of the springhare, *Pedetes capensis*, based on mitochondrial DNA sequences. *Mol. Biol. Evol.* 14:20-29.
- MATTHEE, C.A., & T.J. ROBINSON. 1999a. Cytochrome *b* phylogeny of the family Bovidae: Resolution within the Alcelaphini, Antilopini, Neotragini, and Tragelaphini. *Mol. Phylogenet. Evol.* 12:31-46.
- MATTHEE, C.A., & T.J. ROBINSON. 1999b. Mitochondrial DNA population structure of roan and sable antelope: Implications for the translocation and conservation of the species. *Mol. Ecol.* 8:227-238.
- MAYR, E. 1940. Speciation phenomena in birds. *Am. Nat.* 74:249-278.
- MAYR, E. 1963. *Animal species and evolution*. Cambridge, MA.
- MEESTER, J.A.J., I.L. RAUTENBACH, N.J. DIPPENAAR, & C.M. BAKER. 1986. Classification of Southern African Mammals. *Trans. Mus. Monogr.* 5. Pretoria.
- MILINKOVITCH, M.C., R.G. LEDUC, J. ADACHI, F. FARNIR, M. GEORGES, & M. HASEGAWA. 1996. Effects of character weighting and species sampling on phylogeny reconstruction: A case study based on cetaceans. *Genetics* 144:1817-1833.
- MILINKOVITCH, M.C. & J. LYONS-WEILER. 1998. Finding optimal ingroup topologies and convexities when the choice of outgroups is not obvious. *Mol. Phylogenet. Evol.* 9:348-357.



- MODI, W.S. 1992. Nucleotide sequence and genomic organization of a tandem satellite array from the rock vole *Microtus chrotorrhinus* (Rodentia). *Mamm. Genome* 3:226-232.
- MODI, W.S., D.S. GALLAGHER, & J.E. WOMACK. 1993. Molecular organization and chromosomal localization of six highly repeated DNA families in the bovine genome. *Animal Biotech.* 4:143-161.
- MODI, W.S., D.S. GALLAGHER, & J.E. WOMACK. 1996. Evolutionary histories of highly repeated DNA families among the Artiodactyla (Mammalia). *J. Mol. Evol.* 42:337-349.
- MOREAU, R.E. 1963. Vicissitudes of the South African biomes in the late Pleistocene. *Proc. Zool. Soc. Lond.* 141:395-421.
- MORITZ, C., T.E. DOWLING, & W.M. BROWN. 1987. Evolution of animal mitochondrial DNA: Biology and systematics. *Ann. Rev. Ecol. Syst.* 18:269-292.
- MULLIS, K.B., & F.A. FALOONA. 1987. Specific synthesis of DNA in vitro via a polymerase catalyzed chain reaction. *Meth. Enzymol.* 155:335-350.
- MYERS, N. 1982. Forest refuges and conservation in Africa: With some appraisal of survival prospects for tropical moist forests throughout the biome. Pages 658-672 in *Biological diversification in the tropics: Proceedings of the Fifth International Symposium of the Association for Tropical Biology* (G.T. Prance, ed.). Columbia University Press, New York.
- NOWAK, R.M. 1999. Order Artiodactyla. Pages 1051-1238 in *Walker's Mammals of the World*, Volume 2. John Hopkins University Press, London.
- O'BRIEN, S.J., & E. MAYR. 1991. Bureaucratic mischief: Recognizing endangered species and subspecies. *Science* 251:1187-1188.
- OGILBY, W. 1837. Various preserved specimens of antelopes. *Proc. Zool. Soc. Lond.* 4:119-121.

- PÄÄBO, S., & A.C. WILSON. 1988. Polymerase chain reaction reveals cloning artifacts. *Nature* 334:387-388.
- POCOCK, R.I. 1910. On the specialized cutaneous glands of ruminants. *Proc. Zool. Soc. Lond.* Pages 840-986.
- POE, S., & D.L. SWOFFORD. 1999. Taxon sampling revisited. *Nature* 398:299-300.
- PRENTICE, M.L., & R.K. MATTHEWS. 1988. Cenozoic ice-volume history: Development of a composite oxygen isotope record. *Geology* 16:963-966.
- RAMBAUT, A., & L. BROMHAM. 1998. Estimating divergence dates from molecular sequences. *Mol. Biol. Evol.* 15:442-448.
- RALLS, K. 1973. *Cephalophus maxwellii*. *Mammalian Species* 31:1-4.
- REILLY, P.A. 1994. Fluorescent *in situ* hybridization. *The Cytogenetic Symposia*.
- ROBINSON, M., M. GOUY, C. GAUTIER, & D. MOUCHIROUD. 1998. Sensitivity of the relative-rate test to taxonomic sampling. *Mol. Biol. Evol.* 15:1091-1098.
- ROBINSON, T.J., A.D. BASTOS, K.M. HALANYCH, & B. HERZIG. 1996. Mitochondrial DNA sequence relationships of the extinct blue antelope *Hippotragus leucophaeus*. *Naturwissenschaften* 83:178-182.
- ROBINSON, T.J., W. HARRISON, F.F.B. ELDER, D.S. GALLAGHER, & V.J. WILSON. 1996. Chromosomal evolution in duiker antelope (Cephalophinae: Bovidae): Karyotype comparisons, fluorescence *in situ* hybridization and rampant X chromosome variation. *Cytogenet. Cell Genet.* 73:116-122.
- ROBINSON, T.J., W.R. HARRISON, F.A. PONCE DE LEÓN, S.K. DAVIS, & F.F.B. ELDER. 1998. A molecular cytogenetic analysis of X chromosome repatterning in the Bovidae: Transpositions, inversions, and phylogenetic inference. *Cytogenet. Cell Genet.* 80:179-184.

- ROBINSON, T.J., & C.A. MATTHEE. 1999. Molecular genetic relationships of the extinct ostrich, *Struthio camelus syriacus*: Consequences for ostrich introductions into Saudi Arabia. *Animal Conservation* 2:165-171.
- RODE, P. 1943. Mammifères ongulés de l'Afrique Noire. Paris.
- SAITOU, N., & M. NEI. 1987. The neighbor-joining method: A new method for reconstructing phylogenetic trees. *Mol. Biol. Evol.* 4:406-425.
- SANDERSON, M.J. 1995. Objections to bootstrapping phylogenies: A critique. *Syst. Biol.* 44:299-320.
- SANGER, F., S. NICKLEN, & A.R. COULSON. 1977. DNA sequencing with chain-terminating inhibitors. *Proc. Natl. Acad. Sci. USA* 74:5463-5467.
- SCHWARZACHER, H.G., U. WOLF, & E. PASSARGE. 1974. *Methods in human genetics*. Springer-Verlag, Berlin.
- SEABRIGHT, M. 1971. A rapid banding technique for human chromosomes. *Lancet* 2:971-972.
- SIMPSON, G.G. 1945. The principles of classification and a classification of the mammals. *Bull. Am. Mus. Nat. Hist.* 85:1-350.
- SITNIKOVA, T., A. RZHETSKY, & M. NEI. 1995. Interior-branch and bootstrap tests of phylogenetic trees. *Mol. Biol. Evol.* 12:319-333.
- SMITH, H. 1827. Page 344 in *Griffith's Cuvier Animal kingdom*. George Whittaker, London.
- SMITH, T.B., & R.K. WAYNE. 1996. *Molecular Genetic Approaches in Conservation*. Oxford University Press, New York.
- SMITHERS, R.H.N. 1983. *The mammals of the southern African subregion*. University of Pretoria, Pretoria.



- SOUTHERN, E.M. 1975. Detection of specific sequences among DNA fragments separated by gel electrophoresis. *J. Mol. Evol.* 98:503-517.
- SPRINGER, M.S., L.J. HOLLAR, & A. BURK. 1995. Compensatory substitutions and the evolution of the mitochondrial 12S rRNA gene in mammals. *Mol. Biol. Evol.* 12:1138-1150.
- ST. LEGER, J. 1936. A key to the species and subspecies of the subgenus *Cephalophus*. *Proc. Zool. Soc. Lond.* Pages 209-228.
- STREECK, R.E. 1981. Inserted sequences in bovine satellite DNA's. *Science* 213:443-445.
- SUMNER, A.T. 1972. A simple technique for demonstrating centromeric heterochromatin. *Expl. Cells Res.* 75:304-306.
- SWOFFORD, D.L. 1991. When are phylogeny estimates from molecular and morphological data incongruent? Pages 295-333 in *Phylogenetic analysis of DNA sequences* (M.M. Miyamoto & J. Cracraft, eds.). Oxford University Press, New York.
- SWOFFORD, D.L. 1999. PAUP\*: Phylogenetic Analysis Using Parsimony (\*and Other Methods). Version 4. Sinauer Associates, Sunderland, MA.
- SWOFFORD, D.L., G.J. OLSEN, P.J. WADDELL, & D.M. HILLIS. 1996. Phylogenetic inference. Pages 407-514 in *Molecular systematics* (D.M. Hillis, C. Moritz, & B.K. Mable, eds.). Sinauer Associates, Sunderland, MA.
- TAKEZAKI, N., & T. GOJOBORI. 1999. Correct and incorrect vertebrate phylogenies obtained by the entire mitochondrial DNA sequences. *Mol. Biol. Evol.* 16:590-601.
- TAKEZAKI, N., A. RZHETSKY, & M. NEI. 1995. Phylogenetic test of the molecular clock and linearized trees. *Mol. Biol. Evol.* 12:823-833.
- THOMAS, W.K. & S.L. MARTIN. 1993. A recent origin of Marmots. *Mol. Phylogenet. Evol.* 2:330-336.

- VAN GELDER, R.G. 1977. Mammalian hybrids and generic limits. *Am. Mus. Novitates* 2635:1-25.
- VAN ZINDEREN BAKKER, E.M. 1962. Botanical evidence for quaternary climates in Africa. *Ann. Cape Prov. Mus.* II:16-31.
- VAWTER, L., & W.M. BROWN. 1986. Nuclear and mitochondrial DNA comparisons reveal extreme rate variation in the molecular clock. *Science* 234:194-196.
- VOLOBOUEV, V., N. VOGT, E. VIEGAS-PÉQUIGNOT, B. MALFOY, & B. DUTRILLAUX. 1995. Characterization and chromosomal location of two repeated DNAs in three *Gerbillus* species. *Chromosoma* 104:252-259.
- VRBA, E.S. 1985a. African Bovidae: Evolutionary events since the Miocene. *S.A.J. Science* 81:263-266.
- VRBA, E.S. 1985b. Environment and evolution: Alternative causes of the temporal distribution of evolutionary events. *S.A.J. Science* 81:229-236.
- VRBA, E.S. 1992. Mammals as a key to evolutionary theory. *J. Mamm.* 73:1-28.
- WALKER, E.P., F. WARNICK, S.E. HAMLET, K.I. LANGE, M.A. DAVIS, H.E. UIBLE, & P.F. WRIGHT. 1975. Pages 1434-1435 in *Mammals of the worlds*. John Hopkins University Press, Baltimore.
- WALLACE, C. 1977. Chromosome evolution in bovids in the Kruger National Park. *S.A.J. Sci.* 73:334-336.
- WASSER, S.K., & J.C. LOVETT. 1993. Climatic history and forest distribution in eastern Africa. Pages 3-7 in *Biogeography and ecology of the rain forests of eastern Africa* (J.C. Lovett & S.K. Wasser, eds.). Cambridge University Press, United Kingdom.
- WHEELER, Q.D., & K.C. NIXON. 1990. Another way of looking at the species problem: A reply to De Queroz and Donoghue. *Cladistics* 6:77-81.

- WILEY, E.O. 1978. The evolutionary species concept reconsidered. *Syst. Zool.* 27:17-26.
- WILLIAMS, A.J. 1997. A conservation and recovery plan for the Ader's duiker (*Cephalophus adersi*). Technical Paper: Conservation and planning sections, Commission for Natural Resources, Tanzania.
- WU, Z., W. LIU, C. MURPHY, & J. GALL. 1990. Satellite 1 DNA sequence from genomic DNA of the giant panda *Ailuropoda melanoleuca*. *Nucl. Acid Res.* 18:1054.
- WURSTER, D.H., & K. BENIRSCHKE. 1968. Chromosome studies in the superfamily Bovoidea. *Chromosoma* 25:152-171.
- YANG, Z., & S. KUMAR. 1996. Approximate methods for estimating the pattern of nucleotide substitution and the variation of substitution rates among sites. *Mol. Biol. Evol.* 13:650-659.
- ZHANG, D., & G.M. HEWITT. 1996. Nuclear integrations: Challenges for mitochondrial DNA markers. *Trends Ecol. Evol.* 11:247-251.
- ZHANG, Y., & E.A. RYDER. 1995. Different rates of mitochondrial DNA sequence evolution in Kirk's dik-dik (*Madoqua kirkii*) populations. *Mol. Phylogenet. Evol.* 4:291-297.