The recent and fossil affinities of the genus *Pedetes* (Mammalia : Rodentia)

Volume 2

By Christopher Davies

St. Peter's College

Thesis submitted for the Degree of Doctor of Philosophy at the University of Oxford

1982

CORRECTIONS

1) The name Megapedetes augaeus should be replaced by the name Megapedetes aegaeus at all points where it occurs.

2) Page 51, line 6 : for "antero-lateral" read "antero-ventral".

3) Page 338 : Delete the paragraph beginning "The second line of evidence ...."
Insert the following :-

The second line of evidence comes from physiological investigations carried out on Pedetes surdaster (Muller et al., 1979). The animals used are actually described as Pedetes capensis but since the work was done in Kenya it was presumably carried out on P. surdaster. In this work a number of physiological parameters believed to be important in adaptation to hot arid environments (e.g. temperature regulation) were investigated. A distinction is made between mammals which are adapted for life in hot desert environments and particularly those which are active above ground during the day and generalised fossorial mammals that may be found in other than desert environments. It is suggested that P. surdaster has physiological characteristics of fossorial mammals rather than of specifically desert-adapted forms. Examples of features in which P. surdaster seems not to be desert-adapted include its inability to regulate its body temperature at high ambient temperatures and its inability to produce highly concentrated

urine. Muller et al. (1979) suggests that the physiological features of P. surdaster help to explain why this animal does not invade desert environments but can survive in semi-arid environments: also, it may be that fossorial activity has been an important aspect of life in pedetids throughout their evolution.

4) Page 367 : insert at top of page "In all Tables measurements are given in mm."

References.

Allen G.M. & A. Loveridge (1927) Mammals from Uluguru and Usambara Mountains, Tanganyika Territory
Proc. Boston nat. Hist. Soc. 38 413 - 441

Alston E.R. (1876) On the Classification of the Order Glires
Proc. zool. Soc. Lond. 1876 61 - 98

Andrews P., J.M. Lord & E.M. Nesbit Evans (1979) Patterns of ecological diversity in fossil and modern mammalian faunas
Biol. J. Linn. Soc. 11 177 - 205

Andrews P. & J.A.H. Van Couvering (1975) Palaeoenvironments in the East African Miocene
Contrib. Primatol. 5 62 - 103

Andrews P. & A. Walker (1976) The Primate and Other Fauna from Fort Ternan, Kenya
In : Isaac G. & E.R. McCown [Eds.] Human Origins : Louis Leakey and the East African Evidence pp. 279 - 304 Benjamin : Menlo Park, California

Ansell W.F.H. (1960) Mammals of Northern Rhodesia
xxxii + 155 + Supplement pp. 24 The Government Printer : Lusaka

Ansell W.F.H. (1964) Addenda and Corrigenda to "Mammals of Northern Rhodesia"
The Puku 2 14 - 52

Ansell W.F.H. (1965) Addenda and Corrigenda to "Mammals of Northern Rhodesia" No. 2

The Puku 3 1 - 14

Ansell W.F.H. (1969) Addenda and Corrigenda to "Mammals of Northern Rhodesia" No. 3

The Puku 5 1 - 48

Ansell W.F.H. (1973) Addenda and Corrigenda to "Mammals of Northern Rhodesia" No. 4

The Puku 7 1 - 19

Attridge J., H.W. Ball, A.J. Charig & C.B. Cox (1964) The British Museum (Natural History) - University of London Joint Palaeontological Expedition to Northern Rhodesia and Tanganyika, 1963

Nature 201 445 - 449

Bardeleben K. (1889) On the Praepollex and Praehallux, with Observations on the Carpus of Theriodesmus phylarchus

Proc. zool. Soc. Lond. 1889 259 - 262

Bardeleben K. (1890) Hat der Praepollex von Pedetes einen Nagel oder nicht?

Anat. Anz. V 321 - 322

Bishop W.W. (1964) More Fossil Primates and other Miocene Mammals from North-East Uganda

Nature 203 1327 - 1331

Bishop W.W. & M.H.L. Pickford (1975) Geology, fauna and palaeoenvironments of the Ngorora Formation, Kenya Rift Valley

Nature 254 185 - 192

Bogart M.H., P.A. Scollay, R.W. Cooper & K. Benirschke (1976) Springhaas (Pedetes capensis)

Chromosome Information Service 20 14 - 15

Bowdich T.E. (1821) An analysis of the natural classifications of Mammalia, for the use of students and travellers

pp. 115 + 15 pls. J. Smith : Paris

Brandt J.F. (1855) Untersuchungen über die Craniologischen Entwickelungsstufen und die Davon Herzuleitenden Verwandtschaften und Classificationen der Nager der Jetztwelt, mit Besonderer Beziehung auf die Gattung Castor

Mem. Acad. imp. Sci. St. Pétersbourg (= Zap. imp. Akad. Nauk.) 6th ser. 7 123 - 336 + XI pls.

Broom R. (1930) The Age of Australopithecus

Nature 125 814

Broom R. (1934) On the fossil remains associated with Australopithecus africanus

S. Afr. J. Sci. 31 470 - 480

Broom R. (1939) The Fossil Rodents of the Limestone Cave at Taungs

Ann. Transvl. Mus. 19 315 - 317

Bugge J. (1974) The Cephalic Arterial System in Insectivores, Primates, Rodents and Lagomorphs, with Special Reference to the Systematic Classification

Acta Anat. 87 (Suppl. 62) 1 - 159

Burchell W.J. (1822) Travels in the Interior of Southern Africa Volume I

xii + 582 Longman, Hurst, Rees, Orme & Brown : London

Butynski T.M. (1972) Springhare Study

Botswana Notes & Records 4 280

Butynski T.M. (1973) Life History and Economic Value of the Springhare (Pedetes capensis Forster) in Botswana

Botswana Notes & Records 5 209 - 213

Butynski T.M. (1975) Nocturnal Ecology of the Springhare, Pedetes capensis Forster, in Botswana

M.S. Thesis Michigan State University : East Lansing

Butynski T.M. (1979) Reproductive ecology of the Springhaas Pedetes capensis in Botswana

J. Zool. 189 221 - 232

Cartmill M. (1967) The Early Pleistocene Mammalian Microfaunas of Sub-Saharan Africa and their Ecological Significance

Quaternaria 9 169 - 198

Clark J.D. (1955) A Note on a Wooden Implement from the Level of Peat I at Florisbad, Orange Free State

Navors. nas. Mus., Bloemfontein 1 135 - 140

Coe M.J. (1969) The Anatomy of the Reproductive Tract and Breeding in the Springhaas, Pedetes surdaster larvalis Hollister

J. Reprod. Fert. Suppl. 6 159 - 174

Cooke H.B.S. (1952) Some fossil mammals in the South African Museum Collections

Ann. S. Afr. Mus. 42 161 - 168

Cooke H.B.S. (1963) Pleistocene Mammal Faunas of Africa, with particular reference to Southern Africa

In : Howell F.C. & F. Bourlière [Eds.] African Ecology and Human Evolution pp. 65 - 116

Methuen & Co. Ltd. : London

Cooke H.B.S. (1968) Evolution of Mammals on Southern Continents. II. The Fossil Mammal Fauna of Africa

Quart. Rev. Biol. 43 234 - 264

Corvinus G. (1978) Fossils from Arrisdrift

Optima 2 27 108 - 114

Cracraft J. (1974) Phylogenetic Models and Classification

Syst. Zool. 23 71 - 90

Cuvier F. (1821) Helamis

In : Levrault F.G. [Ed.] Dictionnaire des Sciences Naturelles Volume XX pp. 342 - 344 Paris, Strasbourg

Cuvier G. (1817) Le Règne Animal distribué d'après son organisation 1st. Edition Volume I

xxxvii + 540 Paris

[Cuvier G.] (1827) The Class Mammalia arranged by Baron Cuvier with Specific descriptions by E. Griffiths, C.H. Smith & E. Pidgeon Volume 3

pp. 468 G.B. Whittaker : London

Cuvier G. (1829) Le Règne Animal distribué d'après son organisation 2nd. Edition Volume I

xxxviii + 584 Paris

Day M.H., M.D. Leakey & C. Magori (1980) A new hominid fossil skull (L.H.18) from the Ngaloba Beds, Laetoli, northern Tanzania

Nature 284 55 - 56

Dietrich W.O. (1942) Ältesquartäre Säugetiere aus der südlichen Serengeti, Deutsch-Ostafrika

Paläontographica, Stuttgart 94A 43 - 133 + 21pls.

Dorst J. & P. Dandelot (1970) A Field Guide to the Larger Mammals of Africa

pp. 287 Collins : London

Dräseke J. (1929) Gehirn und Schädel von Pedetes caffer (Pall.) Gegenbaurs morph. Jb. 62 39 - 57

Dreyer T.F. & A. Lyle (1931) New Fossil Mammals and Man from South Africa

pp. 60 + 12 pls. Dept. Zool., Grey University College : Bloemfontein

Ellerman J.R. (1940) The Families and Genera of Living Rodents. Volume I : Rodents other than Muridae

xxvi + 689 British Museum (Natural History) : London

Ellerman J.R. (1949) The Families and Genera of Living Rodents. Volume III

pp. 210 British Museum (Natural History) : London

Ellerman J.R. & T.C.S. Morrison-Scott (1965) Checklist of Palaearctic and Indian Mammals 1758 to 1946 2nd. Edition

pp. 810 British Museum (Natural History) : London

Ellerman J.R., T.C.S. Morrison-Scott & R.W. Hayman (1953) Southern African Mammals 1758 - 1951 : a reclassification

pp. 363 British Museum (Natural History) : London

Fischer T.V. & H.W. Mossman (1969) The Fetal Membranes of Pedetes capensis and their Taxonomic Significance Amer J. Anat. 124 89 - 116

Fitzsimons F.W. (1920) The Natural History of South Africa
Volume IV xx + 271 Longmans, Green & Co. :
London

Flower W.H. & R. Lydekker (1891) Mammals Living and Extinct
xvi + 763 Adam & Charles Black : London

Forster J.R. (1778) Beskrifning på Djuret Yerbua capensis,
med Anmärkningar om Genus Yerbua
K. svenska VetenskAkad. Handl. 39 108 - 119

George W. (1980) A study in hystricomorph rodent relationships :
the karyotypes of Thryonomys gregorianus, Pedetes capensis
and Hystrix cristata
Zool. J. Linn. Soc. 68 361 - 372

George W. (1981) Blood vascular patterns in rodents :
contributions to an analysis of rodent family relationships
Zool. J. Linn. Soc. 73 287 - 306

Gervais P. (1849) Rongeurs
In : D'Orbigny C. [Ed.] Dictionnaire Universel
D'Histoire Naturelle Volume 11 (REP - STE)
pp. 198 - 204 Martinet : Paris

Goldsmith N.F., E. Tchernov, L. Ginsburg, P. Tassy & J.A.
Van Couvering (1982) Ctenodactylid rodents in the
Miocene Negev fauna of Israel
Nature 296 645 - 647

Goldstein B. (1972) Allometric analysis of relative humerus width and olecranon length in some unspecialized burrowing mammals

J. Mammal. 53 148 - 156

de Graaf G. (1961) A Short Survey of Investigations of Fossil Rodents in African Deposits

S. Afr. J. Sci. 57 191 - 196

Gray J.E. (1843) List of the Specimens of Mammalia in the Collection of the British Museum

xxviii + 216 Trustees of British Museum : London

Gregory W.K. (1910) The Orders of Mammals

Bull. Amer. Mus. nat. Hist. 27 1 - 524

Gregory W.K. (1920) Studies in Comparative Myology and Osteology : No. IV — A review of the evolution of the lacrymal bone of vertebrates with special reference to that of mammals

Bull. Amer. Mus. nat. Hist. 42 95 - 263

Griffiths G.C.D. (1972) The Phylogenetic Classification of Diptera Cyclorrhapha with special reference to the structure of the male post-abdomen

Ser. Entomol. 8 1 - 340

Guthrie D.A. (1963) The Carotid Circulation in the Rodentia

Bull. Mus. comp. Zool. 128 455 - 481

Guthrie D.A. (1969) The Carotid Circulation in Aplodontia
J. Mammal. 50 1 - 7

Haagner A. (1920) South African Mammals
xx + 248 H.F. & G. Witherby

Hatt R.T. (1932) The Vertebral Columns of Ricochetal Rodents
Bull. Amer. Mus. nat. Hist. 63 599 - 738

Hennig W. (1966) Phylogenetic Systematics
Translated by : Davis D.D. & R. Zangerl
pp. 1 - 263 University of Illinois Press : Urbana, Chicago, London

Hildebrand M. (1978) Insertions and Functions of Certain Flexor Muscles in the Hind Leg of Rodents
J. Morph. 155 111 - 122

Hill J.E. (1935) The Cranial Foramina in Rodents
J. Mammal. 16 121 - 129

Hill J.E. & T.D. Carter (1941) The Mammals of Angola, Africa
Bull. Amer. Mus. nat. Hist. 78 1 - 211

Hinton M.A.C. (1920) The Species of Pedetes inhabiting Angola
Ann. Mag. nat. Hist. Lond. 9th Series 6 102 - 104

Hollister N. (1918) New Rodents from British East Africa
Smithsonian Misc. Collect. 68 No. 10 1 - 3

Hollister N. (1919) East African Mammals in the United States National Museum
Bull. U.S. nat. Mus. 99 Part II : Rodentia, Lagomorpha and Tubulidentata pp. x + 184 + 44 pls.

Hoogstraal H. (1972) Notes on African Haemaphysalis Ticks. IX. H. (Rhipistoma) Pedetes sp. n., a relict parasite of the springhare (Rodentia : Pedetidae) in Transvaal (Ixodoidea : Ixodidae)
J. Parasitol. 58 979 - 983

Hopwood A.T. & J.P. Hollyfield (1954) An Annotated Bibliography of the Fossil Mammals of Africa (1742 - 1950)
Fossil Mammals of Africa 8 1 - 194 British Museum (Natural History) : London

Howell F.C. & F. Bourlière (1963) [Eds.] African Ecology and Human Evolution
x + 666 Methuen & Co. Ltd. : London

Illiger C. (1811) Prodromus Systematis Mammalium et Avium
xviii + 302 Berlin

International Code of Zoological Nomenclature adopted by the XV International Congress of Zoology (1961)
xviii + 176 International Trust for Zoological Nomenclature : London.

Johnson M. (1947) Remains of Land and Freshwater Vertebrates of German South-West Africa

Translation of : Stromer E. (1926) Reste Land- und Süsswasserbewohnender Wirbeltiere aus den Diamantfeldern Deutsch-Südwest-Afrika

Unpublished MS. Nairobi

Jones F.W. (1940) The External Characters of a Neonatal Pedetes

Proc. zool. Soc. Lond. 110B 199 - 206

Kielan-Jaworowska Z. (1977) Evolution of the therian mammals in the Late Cretaceous of Asia. Part II. Postcranial skeleton in Kennalestes and Asioryctes

Palaeontol. Pol. 37 65 - 83

Kingdon J. (1974) East African Mammals : An Atlas of Evolution in Africa. Volume IIB (Hares and Rodents)

x + pp. 343 - 704 + lvii Academic Press : London, New York

Kupper W. (1970) Der Kehlkopf des afrikanischen Springhasen, Pedetes capensis (Forster, 1778), (Mammalia, Rodentia)

Z. wiss. Zool. 181 140 - 178

Landry S.O. (1957) Factors affecting the Procumbency of Rodent Upper Incisors

J. Mammal. 38 223 - 234

Lavocat R. (1956) Réflexions sur la Classification des Rongeurs

Mammalia 20 49 - 56

Lavocat R. (1961) Etude Systematique de la Faune de Mammifères
In : Le Gisement de Vertébrés Miocènes de Beni Mellal (Maroc) Notes et Mémoires de Service Géologique (Maroc) 155 29 - 94 & 109 - 117

Lavocat R. (1973) Les Rongeurs du Miocène d'Afrique Orientale. I. Miocène Inferieur
Mems. et Trav. de l'Institut de Montpellier 1
1 - 284

Lavocat R. (1974) What is an Hystricomorph?
In : Rowlands I.W. & B.J. Weir [Eds.] The Biology of Hystricomorph Rodents Symp. zool. Soc. Lond. 34 7 - 20

Lavocat R. (1978) Rodentia and Lagomorpha
In : Maglio V.J. & H.B.S. Cooke [Eds.] Evolution of African Mammals pp. 69 - 89 Harvard University Press : Cambridge

Lavocat R. & J. Michaux (1966) Interprétation de la Structure Dentaire des Rongeurs Africains de la Famille des Pédétidés
C. r. hebd. Séanc. Acad. Sci. Paris 262D 1677 - 1679

Leakey L.S.B. (1965) Olduvai Gorge 1951 - 61 Volume I
xiv + 118 Cambridge University Press : Cambridge

Leakey M.D., R.L. Hay, G.H. Curtis, R.E. Drake, M.K. Jackes & T.D. White (1976) Fossil Hominids from the Laetolil Beds

Nature 262 460 - 466

Leakey M.D. & R.L. Hay (1979) Pliocene Footprints in the Laetolil Beds at Laetoli, northern Tanzania

Nature 278 317 - 323

Lehmann W.H. (1963) The Forelimb Architecture of Some Fossorial Rodents

J. Morph. 113 59 - 76

Luckett W.P. (1971) The Development of the Chorio-allantoic Placenta of the African Scaly-tailed Squirrels (Family Anomaluridae)

Amer. J. Anat. 130 159 - 178

MacInnes D.G. (1956) Fossil Tubulidentata from East Africa

Fossil Mammals of Africa 10 1 - 38 British Museum (Natural History) : London

MacInnes D.G. (1957) A New Miocene Rodent from East Africa

Fossil Mammals of Africa 12 1 - 36 British Museum (Natural History) : London

McN. Alexander R. (1975) The Chordates

viii + 480 Cambridge University Press : London

Marshall L.G. (1979) Evolution of metatherian and eutherian (mammalian) characters : a review based on cladistic methodology

Zool. J. Linn. Soc. 66 369 - 410

Mayr E. (1974) Cladistic analysis or cladistic classification?

Z. zool. Syst. Evolut.-forsch 12 94 - 128

Miller G.S. (1927) A New Pedetes from Tanganyika Territory

Proc. biol. Soc. Washington 40 113 - 114

Miller G.S. & J.W. Gidley (1918) Synopsis of the Super-generic Groups of Rodents

J. Wash. Acad. Sci. 8 431 - 448

Misonne X. (1971) Part 6. Order Rodentia : Main Text

In : Meester J. & H.W. Setzer [Eds.] The Mammals of Africa : An Identification Manual Smithsonian Institution Press : Washington

Morris D. (1965) The Mammals. A guide to the living species

pp. 448 Hodder & Stoughton : London

Mossman H.W. & T.V. Fischer (1969) The Preplacenta of Pedetes, the Träger, and the Maternal Circulatory Pattern in Rodent Placentae

J. Reprod. Fert. Suppl. 6 175 - 184

Müller E.F., J.M.Z. Kamau & G.M.O. Maloiy (1979) O_2-Uptake, Thermoregulation and Heart Rate in the Springhare (Pedetes capensis)

J. comp. Physiol. 133 187 - 191

Oaks E.C.J. (1968) Structure and Function of Inflated Middle Ears of Rodents

Diss. Abstr. 28 4352 - 4353

Owen R. (1847) Mammalia

In : Todd R.B. [Ed.] The Cyclopaedia of Anatomy and Physiology. Volume III. (INS - PLA) pp. 234 - 245

Longman, Brown, Green, Longmans & Roberts : London

Owen R. (1866) On the Anatomy of Vertebrates. Volume II. Birds and Mammals

viii + 592 Longmans, Green & Co. : London

Pallas P.S. (1779) Novae Species Quadrupedum e Glirium Ordine

viii + 388 Erlangae

Parent J.-P. (1976) La region auditive des Rongeurs sciurognathes. Caractères anatomiques fondamentaux

C. r. hebd. Séanc. Acad. Sci. Paris 282D 2183 - 2185

Parsons F.G. (1898) On the Anatomy of the African Jumping-Hare (Pedetes caffer) compared with that of the Dipodidae

Proc. zool. Soc. Lond. 1898 858 - 890

Pocock R.I. (1922) The External Characters of Scarturus and other Jerboas compared with those of Zapus and Pedetes

Proc. zool. Soc. Lond. 1922 659 - 682

Rensberger J.M. (1975) Function in the Cheek Teeth Evolution of Some Hypsodont Geomyoid Rodents

J. Paleontol. 49 10 - 22

Roberts A. (1926) Some New S. African Mammals and Some Changes in Nomenclature

Ann. Transvl. Mus. 11 245 - 263

Roberts A. (1935) Scientific Results of the Vernay-Lang Kalahari Expedition, March - September 1930. Mammals

Ann. Transvl. Mus. 16 187 - 249

Roberts A. (1938) Descriptions of New Forms of Mammals

Ann. Transvl. Mus. 19 231 - 245

Roberts A. (1946) Descriptions of Numerous New Subspecies of Mammals

Ann. Transvl. Mus. 20 303 - 328

Romer A.S. (1933) Vertebrate Paleontology 1st. Edition viii + 491 University of Chicago Press : Chicago

Romer A.S. (1945) Vertebrate Paleontology 2nd. Edition x + 687 University of Chicago Press : Chicago

Romer A.S. (1966) Vertebrate Paleontology 3rd. Edition x + 468 University of Chicago Press : Chicago

St. Leger J. (1931) A Key to the Families and Genera of African Rodentia

Proc. zool. Soc. Lond. 1931 957 - 997

Saunders J.T., S.M. Manton & M.E. Brown (1969) A Manual of Practical Vertebrate Morphology 4th. Edition

xii + 288 Clarendon Press : Oxford

Sclater W.L. (1901) The Mammals of South Africa. Volume II. Rodentia, Chiroptera, Insectivora, Cetacea and Edentata

xii + 241 R.H. Porter : London

Sen S. (1977) Megapedetes augaeus n. sp. (Pedetidae) et à propos d'autres "Rongeurs Africains" dans le Miocène d'Anatolie

Géobios 10 983 - 986

Simons E.L. & A.E. Wood (1968) Early Cenozoic Mammalian Faunas, Fayum Province, Egypt

Bull. Peabody Mus. nat. Hist. 28 1 - 105

Simpson G.G. (1945) The Principles of Classification and a Classification of Mammals

Bull. Amer. Mus. nat. Hist. 85 1 - 350

Simpson G.G. (1961) Principles of Animal Taxonomy

xiv + 247 Columbia University Press : New York, London

Skead C.J. (1973) Zoo-Historical Gazetteer

Ann. Cape. Prov. Mus. 10 v + 259

Smith A. (1834) African Zoology

S. Afr. Quarterly J. 2nd. ser. 2 169 - 192

Smith C.C. (1965) Ageing Criteria in the Spring Hare, Pedetes capensis Forster

Arnoldia 1 (26) 1 - 6

Smithers R.H.N. (1971) The Mammals of Botswana

Museum Memoir No. 4 1 - 340 Trustees of the National Museum of Rhodesia : Salisbury

Stehlin H.G. & S. Schaub (1951) Die Trigonodontie der simplicidentaten Nager

Schweiz. palaeont. Abh. 67 1 - 385

Stromer E. (1923) Ergebnisse der Bearbeitung mitteltertiärer Wirbeltier-Reste aus Deutsch-Südwest Afrika

Sitz. Bäyer. Akad. Wiss. München 1923 253 - 270

Stromer E. (1926) Reste Land- und Süsswasserbewohnender Wirbeltiere aus den Diamantfeldern Deutsch-Südwest-Afrikas

In : Kaiser E. Die Diamantenwüste Südwest-Afrikas

Volume 2 pp. 107 - 153 D. Reimer : Berlin

Swynnerton G.H. & R.W. Hayman (1951) A Checklist of the Land Mammals of the Tanganyika Territory and the Zanzibar Protectorate

J. E. Afr. nat. Hist. Soc. 20 274 - 393

Szalay F.S. (1977) Phylogenetic relationships and a classification of the eutherian Mammalia
In : Hecht M.K., P.C. Goody & B.M. Hecht [Eds.] Major Patterns in Vertebrate Evolution pp. 315 - 374 Plenum Press : New York, London

Thomas O. (1896) On the Genera of Rodents : an Attempt to bring up to date the current Arrangement of the Order
Proc. zool. Soc. Lond. 1896 1012 - 1028

Thomas O. (1902) The Lycaon and Pedetes of British East Africa, and a new Gerbille from N. Nyasa
Ann. Mag. nat. Hist. Lond. 7th. ser. 9 438 - 442

Tobien H. (1968) Paläontologische Ausgrabungen nach jungtertiären Wirbeltieren auf der Insel Chios (Griechenland) und bei Maragheh (N.W.-Iran)
Jahrb.-Verein. Freunde der Universitat Mainz 1968 51 - 58

Tullberg T. (1899) Ueber das System der Nagethiere. Eine Phylogenetische Studie (Sections I & II)
Nova Acta R. Soc. Scient. upsal. 3rd. ser. 18 (Fasc. I) Sectio Medica et Historiae Naturalis 1 - 328

Tullberg T. (1900) Ueber das System der Nagethiere. Eine Phylogenetische Studie (Sections III & IV)
Nova Acta R. Soc. Scient. upsal. 3rd. ser. 18 (Fasc. II) Sectio Medica et Historiae Naturalis 329 - 514 + A1 - A20 + 57 pls.

Van Couvering J.A.H. & J.A. Van Couvering (1976) Early Miocene Mammal Fossils from East Africa : Aspects of Geology, Faunistics and Paleoecology

In : Isaac G. & E.R. McCown [Eds.] Human Origins : Louis Leakey and the East African Evidence pp. 155 - 207 Benjamin : Menlo Park, California

van der Merwe M., J.D. Skinner & R.P. Millar (1980) Annual Reproductive Pattern in the Springhaas, Pedetes capensis

J. Reprod. Fert. 58 259 - 266

Wahlert J.H. (1968) Variability of Rodent Incisor Enamel as viewed in Thin Section, and the Microstructure of the Enamel in Fossil and Recent Rodent Groups

Breviora 309 1 - 18

Wahlert J.H. (1973) Protoptychus, a Hystricomorphous Rodent from the Late Eocene of North America

Breviora 419 1 - 14

Wahlert J.H. (1974) The Cranial Foramina of Protrogomorphous Rodents; An Anatomical and Phylogenetic Study

Bull. Mus. comp. Zool. 146 363 - 410

Wahlert J.H. (1977) Cranial Foramina and Relationships of Eutypomys (Rodentia : Eutypomyidae)

Amer. Mus. Novit. 2626 1 - 8

Wahlert J.H. (1978) Cranial Foramina and Relationships of the Eomyoidea (Rodentia : Geomorpha). Skull and Upper Teeth of Kansasimys

Amer. Mus. Novit. 2645 1 - 16

Walker A. (1969) Fossil Mammal Locality on Mount Elgon, Eastern Uganda

Nature 223 591 - 593

Walker E.P. (1975) *Mammals of the World* Volume II 3rd. Edition

pp. viii + 645 - 1500 The Johns Hopkins University Press : Baltimore, London

Warwick R. & P.L. Williams [Eds.] (1973) *Gray's Anatomy* 35th. Edition

xvi + 1471 Longman : Edinburgh

Waterhouse G.R. (1839) On the Geographical Distribution of the Rodentia

Proc. zool. Soc. Lond. 1839 172 - 174

Weber M. (1928) *Die Säugetiere* Volume 2 2nd. Edition

xxiv + 898 Gustav Fischer : Jena

Winge H. (1887) Jordfundne og nulevende Gnavere (Rodentia) fra Lagoa Santa, Minas Geraes, Brasilien

E Museo Lundi 1 (III) 1 - 178

Wood A.E. (1947) Rodents — A Study in Evolution

Evolution 1 154 - 162

Wood A.E. (1955) A Revised Classification of the Rodents

J. Mammal. 36 165 - 187

Wood A.E. (1958) Are There Rodent Suborders?
Syst. Zool. 7 169 - 173

Wood A.E. (1962a) The Juvenile Tooth Patterns of Certain African Rodents
J. Mammal. 43 310 - 322

Wood A.E. (1962b) The Early Tertiary Rodents of the Family Paramyidae
Trans. Amer. Philos. Soc. N.S. 52 3 - 261

Wood A.E. (1965a) Unworn teeth and relationships of the African rodent, Pedetes
J. Mammal. 46 419 - 423

Wood A.E. (1965b) Grades and Clades among Rodents
Evolution 19 115 - 130

Wood A.E. (1974) The Evolution of the Old World and New World Hystricomorphs
In : Rowlands I.W. & B.J. Weir [Eds.] The Biology of Hystricomorph Rodents Symp. zool. Soc. Lond. 34 21 - 60

Wroughton R.C. (1907) On Three New Mammals from South Africa
Ann. Mag. nat. Hist. Lond. 7th. ser. 20 31 - 33

Young J.Z. (1962) The Life of Vertebrates 2nd. Edition
xvi + 820 Clarendon Press : Oxford

Site	Country	Material housed at	Species found
Songhor	Kenya	TILLMIAP BM(NH)	Megapedetes pentadactylus
Fort Ternan	Kenya	TILLMIAP	Megapedetes pentadactylus Gen. et sp. indet.
Legetet	Kenya	TILLMIAP	Megapedetes pentadactylus
Mfwangano	Kenya	TILLMIAP	Megapedetes pentadactylus
Rusinga	Kenya	TILLMIAP BM(NH)	Megapedetes pentadactylus Gen. et sp. indet.
Maboko	Kenya	TILLMIAP	Gen. et sp. indet.
Olduvai Gorge	Tanzania	TILLMIAP BM(NH)	Pedetes c.f. surdaster
Laetoli	Tanzania	TILLMIAP BM(NH) Olduvai Gorge	Pedetes laetoliensis Pedetes c.f. surdaster
Elisabethfeld	South West Africa	S.A.M. Munich	Parapedetes namaquensis c.f. Parapedetes namaquensis
Arrisdrift	South West Africa	S.A.M.	Megapedetes c.f. pentadactylus
Taung	South Africa	Albany Museum	Pedetes gracilis
Floris Bad	South Africa	S.A.M.	Pedetes hagenstadi

Table 1.I : Sites from which has come the fossil material examined in this study.

Character	m	s^2	s	n	Range
Length of cranium	83.9	5.97	2.4	32	78.1 - 88.3
Length of nasals	25.9	2.04	1.4	39	23.3 - 28.9
Anterior width of nasals	12.5	0.61	0.8	35	10.9 - 14.3
Posterior width of nasals	19.5	1.79	1.3	41	16.6 - 22.0
Greatest width of nasals	20.1	1.81	1.3	40	17.1 - 22.7
Width of premaxilla edge	1.3	0.11	0.3	43	0.7 - 2.5
Zygomatic width	52.9	8.79	3.0	35	44.2 - 57.7
Length of frontals	33.5	1.71	1.3	37	30.7 - 35.9
Interorbital constriction	34.8	2.51	1.6	38	31.6 - 37.5
Width of braincase	38.9	0.97	1.0	31	36.5 - 40.7
Mastoid width	44.2	1.29	1.1	32	41.3 - 46.0
Width of inter-parietal	14.2	0.67	0.8	39	12.9 - 16.5
Length of left bulla	17.4	0.59	0.8	35	16.1 - 18.7
Length of right bulla	17.4	0.66	0.8	35	15.4 - 18.7
Depth of nasal wings	12.8	0.79	0.9	40	11.0 - 14.5
Depth of rostrum	30.6	1.67	1.3	41	27.6 - 32.9
Length of squamosal process	10.6	0.55	0.7	36	9.5 - 12.4
Width of squamosal process	1.0	0.03	0.2	36	0.5 - 1.3

Table 2.I (part) : Pedetes surdaster. Measurements of the cranium.

Character	m	s^2	s	n	Range
Depth of nasal opening	15.8	0.54	0.7	35	14.0 - 17.0
Width of nasal opening	11.7	0.50	0.7	34	10.1 - 13.3
Depth of palatal groove	3.1	0.24	0.5	43	1.8 - 4.1
Length of incisive foramina	5.3	0.21	0.5	43	4.5 - 7.2
Width of incisive foramina	3.3	0.11	0.3	44	2.7 - 4.1
Length of left diastema	18.5	0.59	0.8	44	15.9 - 19.7
Length of right diastema	18.4	0.48	0.7	43	17.1 - 19.8
Length of left tooth-row	18.0	0.64	0.8	43	16.2 - 21.1
Length of right toothrow	18.0	0.52	0.7	43	16.5 - 19.9
Width : m^1 - m^1	16.5	0.42	0.7	43	15.3 - 18.0
Width of left m^1	3.7	0.04	0.2	41	3.1 - 4.3
Width of right m^1	3.6	0.04	0.2	40	3.2 - 4.0
Length of upper incisor	4.1	0.04	0.2	42	3.5 - 4.5
Width of upper incisor	3.9	0.04	0.2	42	3.5 - 4.3
Width of rostrum	22.9	2.06	1.4	41	19.5 - 25.9
Depth over lachrymal	33.3	2.16	1.5	41	29.9 - 36.3

Table 2.I (continued) : Pedetes surdaster. Measurements of the cranium. Abbreviations heading the columns are: m = mean; s^2 = variance; s = standard deviation; n = size of sample.

Character	m	s^2	s	n	Range
Depth at anterior edge of pm_4	14.3	0.69	0.8	45	12.1 - 16.7
Depth at condyle	27.3	2.39	1.5	43	23.5 - 29.8
Length of ramus	44.6	2.85	1.7	43	40.3 - 47.5
Length of toothrow	17.9	0.58	0.8	45	16.0 - 19.6
Length of diastema	8.8	0.25	0.5	45	7.2 - 9.8
Length of condyle	6.1	0.17	0.4	43	5.5 - 7.3
Width of condyle	3.5	0.19	0.4	43	2.5 - 4.6

Table 2.II : Pedetes surdaster. Measurements of the mandible. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Maximum height	14.1	0.95	1.0	14	12.3 - 15.6
Length of ventral arch	3.5	0.15	0.4	14	3.0 - 4.3
Height of ventral arch	2.6	0.11	0.3	13	1.9 - 3.1
Maximum breadth	21.7	1.29	1.1	12	19.5 - 23.5

Table 2.III : Pedetes surdaster. Measurements of the atlas vertebra. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Maximum height	16.7	0.56	0.7	16	15.1 - 17.8
Length	8.4	0.18	0.4	16	7.8 - 8.9
Height of centrum	2.9	0.07	0.3	3	2.7 - 3.1
Breadth	15.8	1.74	1.3	13	12.9 - 17.6

Table 2.IV : Pedetes surdaster. Measurements of the axis vertebra. Abbreviations heading columns as for Table 2.I.

	Character	m	s^2	s	n	Range
Ce3	Length	3.8	0.28	0.5	19	2.1 - 4.4
	Height	2.3	0.07	0.3	13	1.9 - 2.7
	Breadth	19.3	0.80	0.9	16	17.6 - 20.3
Ce4	Length	3.7	0.17	0.4	19	2.6 - 4.1
	Height	2.2	0.03	0.2	12	1.9 - 2.5
	Breadth	21.6	0.89	0.9	14	19.7 - 22.7
Ce5	Length	3.6	0.10	0.3	20	2.9 - 4.1
	Height	2.1	0.01	0.1	12	1.9 - 2.3
	Breadth	24.1	1.24	1.1	19	21.5 - 26.1
Ce6	Length	3.8	0.09	0.3	21	2.9 - 4.2
	Height	2.1	0.02	0.1	14	1.8 - 2.3
	Breadth	25.4	0.69	0.8	21	23.9 - 27.1
Ce7	Length	4.2	0.17	0.4	21	3.1 - 4.7
	Height	2.3	0.03	0.2	14	2.0 - 2.7
	Breadth	26.7	0.55	0.7	19	25.3 - 27.7

Table 2.V : Pedetes surdaster. Measurements of Ce3 - Ce7. Abbreviations heading columns as for Table 2.I.

	Character	m	s^2	s	n	Range
Th1	Length	4.6	0.22	0.5	19	3.4 - 5.2
	Height	2.7	0.04	0.2	13	2.3 - 2.9
	Breadth	26.4	1.34	1.2	20	24.3 - 28.5
Th3	Length	5.6	0.35	0.6	18	4.2 - 6.2
	Height	3.1	0.07	0.3	12	2.7 - 3.5
	Breadth	21.7	1.29	1.1	17	19.5 - 23.5
Th6	Length	6.3	0.46	0.7	18	4.9 - 6.9
	Height	3.8	0.08	0.3	12	3.3 - 4.5
	Breadth	17.9	0.41	0.6	20	16.9 - 18.9
Th9	Length	7.7	0.43	0.7	20	6.0 - 8.7
	Height	4.9	0.10	0.3	16	4.4 - 5.3
	Breadth	16.7	0.60	0.8	20	15.3 - 18.1
Th12	Length	10.2	0.57	0.8	19	8.3 - 11.3
	Height	5.7	0.23	0.5	16	4.9 - 6.9
	Breadth	13.5	0.42	0.6	18	12.7 - 14.5

Table 2.VI : Pedetes surdaster. Measurements of some thoracic vertebrae. Abbreviations heading columns as for Table 2.I.

	Character	m	s^2	s	n	Range
Lu1	Length	11.4	0.65	0.8	20	9.3 - 12.6
	Height	6.0	0.12	0.4	18	5.5 - 6.7
	Breadth	10.9	4.41	2.1	20	8.2 - 14.1
Lu2	Length	12.1	0.64	0.8	20	10.1 - 13.1
	Height	6.4	0.11	0.3	15	5.9 - 6.9
	Breadth	11.6	4.15	2.0	20	8.9 - 14.7
Lu3	Length	12.4	0.71	0.8	20	10.5 - 13.7
	Height	6.3	0.15	0.4	15	5.7 - 6.9
	Breadth	11.8	3.73	1.9	20	9.5 - 15.1
Lu4	Length	12.9	0.69	0.8	20	10.9 - 13.9
	Height	6.5	0.18	0.4	16	5.7 - 7.1
	Breadth	12.2	2.64	1.6	19	9.5 - 14.7
Lu5	Length	13.3	0.65	0.8	20	11.3 - 14.4
	Height	6.5	0.22	0.5	13	5.8 - 7.2
	Breadth	12.6	1.26	1.1	14	11.1 - 14.8
Lu6	Length	13.3	1.01	1.0	20	11.1 - 14.6
	Height	6.7	0.29	0.5	13	5.5 - 7.5
	Breadth	13.3	1.43	1.2	19	11.4 - 15.5
Lu7	Length	12.1	0.78	0.9	20	10.3 - 13.3
	Height	6.7	0.19	0.4	15	5.9 - 7.5
	Breadth	15.1	0.61	0.8	19	13.5 - 16.1

Table 2.VII : Pedetes surdaster. Measurements of the lumbar centra. Abbreviations heading columns as for Table 2.I.

	Character	m	s^2	s	n	Range
Lu1	Height	5.6	0.10	0.3	16	5.1 - 6.1
	Breadth	6.5	0.06	0.2	16	6.1 - 6.9
Lu2	Height	5.7	0.06	0.2	16	5.2 - 6.0
	Breadth	6.6	0.11	0.3	16	6.1 - 7.1
Lu3	Height	5.8	0.07	0.3	15	5.3 - 6.3
	Breadth	6.6	0.14	0.4	15	6.1 - 7.3
Lu4	Height	6.1	0.11	0.3	16	5.6 - 6.7
	Breadth	6.8	0.12	0.3	16	6.2 - 7.3
Lu5	Height	6.5	0.14	0.4	14	6.1 - 7.3
	Breadth	7.5	0.30	0.5	15	6.7 - 8.6
Lu6	Height	6.8	0.13	0.4	12	6.4 - 7.6
	Breadth	8.7	0.34	0.6	12	7.8 - 9.9
Lu7	Height	6.1	0.13	0.4	15	5.5 - 6.9
	Breadth	10.0	0.27	0.5	15	9.4 - 11.1

Table 2.VIII : Pedetes surdaster. Measurements of the neural arches of the lumbar vertebrae. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Sacro-iliac expansion	38.4	2.88	1.7	14	35.1 - 40.5
Length	29.4	1.57	1.3	17	27.4 - 31.1
Length of iliac support	20.3	1.82	1.3	20	17.0 - 23.1
Depth of iliac support	12.4	1.39	1.2	18	10.3 - 14.7
Width across Sa2	24.2	3.96	2.0	18	19.7 - 29.4

Table 2.IX : Pedetes surdaster. Measurements of the sacrum. Abbreviations heading columns as for Table 2.I.

	Character	m	s^2	s	n	Range
Ca1	Length	9.1	0.38	0.6	19	7.3 - 9.9
	Depth	6.2	0.18	0.4	15	5.4 - 6.7
Ca5	Length	10.8	0.52	0.7	19	9.0 - 11.9
	Depth	6.6	0.06	0.2	11	6.2 - 7.0
Ca10	Length	19.6	2.52	1.6	19	14.5 - 21.5
	Depth	8.4	0.23	0.5	15	7.7 - 9.1
Ca15	Length	18.8	1.24	1.1	18	16.0 - 20.3
	Depth	7.7	0.47	0.7	13	6.6 - 9.1
Ca20	Length	15.6	5.83	2.4	18	7.7 - 17.5
	Depth	5.4	0.33	0.6	14	4.2 - 6.5
Ca25	Length	11.6	2.34	1.5	11	9.0 - 13.3
	Depth	3.4	0.62	0.8	8	2.5 - 5.0
Ca30	Length	7.2	2.88	1.7	5	5.6 - 9.6
	Depth	1.9	0.18	0.4	5	1.5 - 2.6

Table 2.X : Pedetes surdaster. Measurements of some representative caudal vertebrae. Abbreviations heading columns as for Table 2.I.

Bone	Character	m	s^2	s	n	Range
Manubrium	Length	15.5	1.01	1.0	13	13.6 - 17.0
	Width	18.1	1.43	1.2	12	16.3 - 19.5
Sternebra 2	Length	10.6	0.44	0.7	10	9.5 - 11.6
	Width	3.4	0.19	0.4	11	2.7 - 4.0
Sternebra 3	Length	10.5	0.83	0.9	11	8.3 - 11.7
	Width	3.4	0.17	0.4	12	2.7 - 4.1
Sternebra 4	Length	9.4	0.44	0.7	10	8.7 - 10.5
	Width	3.5	0.18	0.4	12	2.9 - 4.3
Sternebra 5	Length	9.6	6.83	2.6	9	6.3 - 14.7
	Width	4.1	0.20	0.4	12	3.5 - 4.7
Xiphoid process	Length	12.8	2.83	1.7	12	9.9 - 15.6
	Width	2.3	0.04	0.2	12	2.1 - 2.6

Table 2.XI : Pedetes surdaster. Measurements of the sternum. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length	25.2	4.32	2.1	10	22.5 - 28.9
Sternal end : antero-posterior depth	3.8	0.06	0.3	15	3.4 - 4.3
Sternal end: transverse width	5.5	0.37	0.6	16	4.0 - 6.4
Scapular end : antero-posterior depth	2.0	0.05	0.2	12	1.6 - 2.5
Scapular end: transverse width	2.8	0.13	0.4	13	2.2 - 3.7

Table 2.XII : Pedetes surdaster. Measurements of the clavicle. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length of glenoid	7.3	0.27	0.5	21	6.3 - 8.2
Width of glenoid	6.2	0.17	0.4	21	5.1 - 7.3
Length of posterior edge	44.4	10.34	3.2	16	37.7 - 49.9
Length of spine	44.5	7.97	2.8	15	38.7 - 48.8
Width of acromion	2.9	0.12	0.3	19	2.3 - 3.5

Table 2.XIII : Pedetes surdaster. Measurements of the scapula. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length	49.6	3.87	2.0	22	45.3 - 52.9
Antero-posterior width of head	10.7	0.12	0.3	22	9.9 - 11.3
Transverse width of head	10.9	0.11	0.3	22	10.1 - 11.5
Distal width	16.3	0.41	0.6	22	15.1 - 17.6

Table 2.XIV : Pedetes surdaster. Measurements of the humerus.

Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length	45.6	2.92	1.7	18	42.5 - 48.9
Proximal end (Max. width)	4.9	0.07	0.3	20	4.5 - 5.6
Proximal end (Min. width)	4.5	0.04	0.2	20	4.1 - 5.0
Distal end (Transverse width)	8.0	0.13	0.4	18	7.3 - 8.7
Distal end (Antero-posterior width)	3.6	0.09	0.3	18	3.1 - 4.3

Table 2.XV : Pedetes surdaster. Measurements of the radius.

Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length	57.4	4.15	2.0	19	52.1 - 61.1
Length of olecranon	6.9	0.23	0.5	8	6.2 - 8.0

Table 2.XVI : Pedetes surdaster. Measurements of the ulna. Abbreviations heading columns as for Table 2.I.

Bone		m	s^2	s	n	Range
Metacarpal I	Length	5.0	0.04	0.2	13	4.7 - 5.3
	Depth	2.6	0.02	0.2	13	2.3 - 2.8
Metacarpal II	Length	8.1	0.08	0.3	13	7.6 - 8.5
	Depth	2.3	0.01	0.1	13	2.1 - 2.5
Metacarpal III	Length	8.7	0.12	0.4	12	8.3 - 9.3
	Depth	2.4	0.02	0.1	13	2.1 - 2.7
Metacarpal IV	Length	8.0	0.12	0.3	13	7.5 - 8.6
	Depth	2.4	0.02	0.2	13	2.3 - 2.7
Metacarpal V	Length	7.1	0.11	0.3	13	6.5 - 7.7
	Depth	2.6	0.02	0.1	13	2.3 - 2.8

Table 2.XVII : Pedetes surdaster. Measurements of the metacarpals. Abbreviations heading columns as for Table 2.I.

Bone	Digit	m	s^2	s	n	Range
Phalanx I	1	5.3	0.12	0.4	12	4.9 - 5.8
	2	6.3	0.05	0.2	10	5.9 - 6.9
	3	6.5	0.10	0.3	11	6.1 - 6.9
	4	6.3	0.21	0.5	11	5.3 - 6.9
	5	5.8	0.18	0.4	11	5.3 - 6.9
Phalanx II	1	11.6	0.61	0.8	8	10.7 - 12.8
	2	4.9	0.12	0.4	11	4.4 - 5.3
	3	5.6	0.09	0.3	11	5.1 - 6.1
	4	5.3	0.22	0.5	11	4.5 - 5.9
	5	4.8	0.17	0.4	11	4.3 - 5.7
Phalanx III	2	13.5	0.45	0.7	8	12.3 - 14.5
	3	14.4	0.72	0.9	8	12.8 - 15.6
	4	13.5	0.79	0.9	7	12.5 - 15.1
	5	12.6	0.53	0.7	7	11.4 - 13.5
Radial ossicle		11.9	0.37	0.6	11	10.9 - 13.3

Table 2.XVIII : Pedetes surdaster. Manus. Lengths of the phalanges and the radial ossicle. Morphologically the phalanges of digit 1 resemble phalanges II & III of the other digits (see Chap. 2). Abbreviations heading columns as for Table 2.I.

Bone	Digit	m	s^2	s	n	Range
Phalanx I	1	2.3	0.01	0.1	12	2.1 - 2.5
	2	2.4	0.01	0.1	12	2.2 - 2.7
	3	2.4	0.02	0.1	12	2.1 - 2.7
	4	2.5	0.07	0.3	12	2.2 - 3.2
	5	2.6	0.03	0.2	13	2.3 - 2.9
Phalanx II	1	3.1	0.03	0.2	8	2.9 - 3.4
	2	2.2	0.01	0.1	12	2.1 - 2.3
	3	2.1	0.01	0.1	12	1.9 - 2.3
	4	2.2	0.03	0.2	13	1.9 - 2.5
	5	2.2	0.02	0.1	13	1.9 - 2.5
Phalanx III	2	3.2	0.02	0.1	8	3.0 - 3.5
	3	3.3	0.02	0.1	8	3.0 - 3.5
	4	3.2	0.05	0.2	8	2.8 - 3.5
	5	3.0	0.03	0.2	7	2.8 - 3.3
Radial ossicle		1.8	0.03	0.2	11	1.3 - 2.0

Table 2.XIX : Pedetes surdaster. Manus. Dorso-ventral depths of the phalanges and the radial ossicle. Morphologically the phalanges of digit 1 resemble phalanges II & III of the other digits (see Chap. 2). Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length	108.3	16.17	4.0	17	98.7 - 113.2
Length anterior to acetabulum	58.4	6.88	2.6	20	50.4 - 62.0
Depth at ischium	43.4	10.55	3.2	15	36.1 - 48.4
Length of symphysis	18.5	4.45	2.1	17	14.9 - 21.8
Depth of ilium	19.6	2.14	1.5	19	17.1 - 22.5

Table 2.XX : Pedetes surdaster. Measurements of the innominate bone. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Maximum length	104.0	12.45	3.5	21	96.7 - 110.8
Length : head to condyles	95.5	10.66	3.3	21	87.5 - 101.1
Median antero-posterior depth	9.0	0.17	0.4	22	8.0 - 9.5
Median transverse width	9.3	0.16	0.4	22	8.5 - 9.9
Width of condyles	21.4	0.43	0.7	22	20.1 - 22.6

Table 2.XXI : Pedetes surdaster. Measurements of the femur. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length	16.6	0.70	0.8	15	14.7 - 17.6
Width	8.9	0.20	0.5	16	8.0 - 9.8
Thickness	4.6	0.10	0.3	16	4.1 - 5.3

Table 2.XXII : Pedetes surdaster. Measurements of the patella. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length	131.9	22.77	4.8	20	119.5 - 138.8
Antero-posterior depth of head	23.0	0.64	0.8	21	21.8 - 24.7
Transverse width of head	23.3	0.59	0.8	21	21.7 - 25.1
Median antero-posterior depth	10.0	0.38	0.6	21	8.3 - 11.0
Median transverse width	10.0	0.62	0.8	21	8.4 - 11.1
Distal antero-posterior depth	9.9	0.15	0.4	21	8.5 - 10.5
Distal transverse width	14.5	0.31	0.6	21	12.9 - 15.3

Table 2.XXIII : Pedetes surdaster. Measurements of the tibia. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Maximum length	39.6	1.55	1.2	19	37.1 - 42.5
Maximum depth	12.3	0.24	0.5	18	11.1 - 13.3
Maximum breadth	9.4	0.42	0.7	18	7.9 - 10.9
Length of tuber calcis	17.8	0.25	0.5	18	16.9 - 18.9
Depth of tuber calcis	9.3	0.17	0.4	21	8.3 - 10.1
Width of tuber calcis	7.8	0.18	0.4	21	6.5 - 8.5

Table 2.XXIV : Pedetes surdaster. Measurements of the calcaneum. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Maximum length	24.8	0.93	1.0	18	22.7 - 26.6
Length of medial side	22.9	0.55	0.7	19	21.7 - 24.3
Length of neck & head	14.0	0.23	0.5	21	13.1 - 14.7
Proximal transverse width	10.6	0.27	0.5	20	9.6 - 11.6
Transverse width of head	9.5	0.16	0.4	20	8.7 - 10.3

Table 2.XXV : Pedetes surdaster. Measurements of the astragalus. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Maximum dorso-ventral depth	13.2	0.19	0.4	21	12.3 - 14.1
Transverse width	7.5	0.12	0.3	17	6.9 - 8.2
Dorsal length	6.4	0.11	0.3	18	5.9 - 7.1
Length of plantar process	15.2	0.34	0.6	20	14.3 - 16.4

Table 2.XXVI : Pedetes surdaster. Measurements of the navicular. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length	16.9	0.28	0.5	17	16.2 - 18.4
Transverse width	7.3	0.32	0.6	17	6.5 - 8.2
Dorso-ventral depth	9.0	0.15	0.4	17	8.3 - 10.1

Table 2.XXVII : Pedetes surdaster. Measurements of the cuboid. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length	18.0	1.43	1.2	19	15.3 - 20.2
Length of proximal process	8.4	1.68	1.3	19	5.1 - 10.9
Median depth	5.7	0.14	0.4	19	5.1 - 6.3
Median width	1.4	0.02	0.1	16	1.2 - 1.8

Table 2.XXVIII : Pedetes surdaster. Measurements of the first cuneiform. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Dorsal length	4.0	0.04	0.2	17	3.7 - 4.3
Maximum dorso-ventral depth	7.6	0.21	0.5	16	6.3 - 8.1
Transverse width	3.6	0.01	0.1	16	3.3 - 3.8

Table 2.XXIX : Pedetes surdaster. Measurements of the second cuneiform. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length	8.5	0.18	0.4	17	7.9 - 9.4
Distal transverse width	6.3	0.12	0.3	17	5.7 - 6.9
Dorso-ventral depth	7.8	0.12	0.3	18	7.1 - 8.3

Table 2.XXX : Pedetes surdaster. Measurements of the third cuneiform. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length	43.9	4.09	2.0	18	41.7 - 48.5
Proximal dorso-ventral depth	8.0	0.14	0.4	18	7.1 - 8.7
Proximal transverse width	4.6	0.04	0.2	18	4.2 - 4.9
Median dorso-ventral depth	5.1	0.06	0.2	21	4.6 - 5.6
Median transverse width	4.7	0.05	0.2	17	4.2 - 5.0
Distal dorso-ventral depth	6.6	0.11	0.3	21	6.0 - 7.3
Distal transverse width	6.3	0.06	0.2	17	5.9 - 7.1

Table 2.XXXI : Pedetes surdaster. Measurements of the second metatarsal (Mt.II). Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length	50.0	4.18	2.0	18	47.3 - 54.7
Proximal dorso-ventral depth	9.8	0.09	0.3	20	9.2 - 10.5
Proximal transverse width	6.5	0.10	0.3	17	5.9 - 7.2
Median dorso-ventral depth	5.2	0.06	0.2	19	4.9 - 5.6
Median transverse width	4.9	0.04	0.2	17	4.6 - 5.3
Distal dorso-ventral depth	6.3	0.05	0.2	20	5.7 - 6.7
Distal transverse width	7.5	0.07	0.3	19	7.1 - 8.1

Table 2.XXXII : Pedetes surdaster. Measurements of the third metatarsal (Mt.III). Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length	38.1	2.89	1.7	18	35.5 - 41.9
Proximal dorso-ventral depth	7.5	0.13	0.4	19	6.5 - 8.1
Proximal transverse width	6.8	0.09	0.3	18	6.1 - 7.4
Median dorso-ventral depth	4.5	0.03	0.2	19	4.3 - 4.9
Median transverse width	4.2	0.04	0.2	18	3.9 - 4.7
Distal dorso-ventral depth	6.2	0.10	0.3	19	5.5 - 6.6
Distal transverse width	6.1	0.10	0.3	18	5.6 - 6.7

Table 2.XXXIII : Pedetes surdaster. Measurements of the fourth metatarsal (Mt.IV). Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length	28.4	1.63	1.3	18	26.3 - 30.9
Proximal dorso-ventral depth	6.5	0.09	0.3	18	5.9 - 7.1
Proximal transverse width	4.4	0.10	0.3	19	3.9 - 4.9
Median dorso-ventral depth	3.9	0.07	0.3	20	3.5 - 4.7
Median transverse width	2.3	0.01	0.1	19	2.0 - 2.5
Distal dorso-ventral depth	4.9	0.08	0.3	20	4.2 - 5.3
Distal transverse width	4.2	0.04	0.2	20	3.7 - 4.5

Table 2.XXXIV : Pedetes surdaster. Measurements of the fifth metatarsal (Mt.V). Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length	18.8	1.05	1.0	16	17.5 - 20.8
Proximal dorso-ventral depth	5.7	0.08	0.3	17	5.0 - 6.3
Proximal transverse width	6.5	0.07	0.3	19	6.1 - 7.3
Median dorso-ventral depth	4.5	0.03	0.2	20	4.1 - 4.7
Median transverse width	3.7	0.03	0.2	18	3.5 - 4.1
Distal dorso-ventral depth	4.1	0.06	0.2	16	3.7 - 4.5
Distal transverse width	4.6	0.06	0.2	17	4.3 - 5.3

Table 2.XXXV : Pedetes surdaster. Pes. Measurements of Ph.I of digit 2. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length	20.9	1.0	1.0	17	19.6 - 22.9
Proximal dorso-ventral depth	6.3	0.07	0.3	19	5.7 - 6.8
Proximal transverse width	7.5	0.08	0.3	20	6.9 - 8.3
Median dorso-ventral depth	4.4	0.05	0.2	20	4.0 - 4.7
Median transverse width	4.7	0.03	0.2	20	4.4 - 4.9
Distal dorso-ventral depth	4.3	0.04	0.2	18	3.9 - 4.7
Distal transverse width	5.9	0.09	0.3	19	5.3 - 6.5

Table 2.XXXVI : Pedetes surdaster. Pes. Measurements of Ph.I of digit 3. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length	18.5	0.56	0.7	19	17.1 - 19.9
Proximal dorso-ventral depth	5.7	0.09	0.3	17	5.0 - 6.2
Proximal transverse width	6.3	0.08	0.3	20	5.8 - 6.9
Median dorso-ventral depth	4.4	0.05	0.2	20	4.0 - 4.9
Median transverse width	3.6	0.04	0.2	20	3.3 - 4.0
Distal dorso-ventral depth	4.0	0.04	0.2	20	3.6 - 4.3
Distal transverse width	4.8	0.08	0.3	20	4.1 - 5.4

Table 2.XXXVII : Pedetes surdaster. Pes. Measurements of Ph.I of digit 4. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length	13.3	0.24	0.5	18	12.6 - 14.5
Proximal dorso-ventral depth	3.9	0.06	0.2	18	3.5 - 4.3
Proximal transverse width	4.1	0.03	0.2	20	3.7 - 4.5
Median dorso-ventral depth	3.0	0.03	0.2	20	2.7 - 3.5
Median transverse width	2.2	0.04	0.2	20	1.9 - 2.9
Distal dorso-ventral depth	2.7	0.03	0.2	17	2.4 - 3.0
Distal transverse width	2.8	0.03	0.2	19	2.5 - 3.1

Table 2.XXXVIII : Pedetes surdaster. Pes. Measurements of Ph.I of digit 5. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length	11.3	0.41	0.6	17	10.3 - 12.9
Proximal dorso-ventral depth	5.5	0.06	0.2	18	5.1 - 6.0
Proximal transverse width	5.1	0.08	0.3	19	4.7 - 5.7
Median dorso-ventral depth	3.8	0.03	0.2	19	3.5 - 4.1
Median transverse width	3.6	0.03	0.2	19	3.3 - 3.9
Distal dorso-ventral depth	3.9	0.03	0.2	18	3.3 - 4.2
Distal transverse width	4.1	0.07	0.3	18	3.7 - 4.7

Table 2.XXXIX : Pedetes surdaster. Pes. Measurements of Ph.II of digit 2. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length	15.4	0.65	0.8	18	14.3 - 17.1
Proximal dorso-ventral depth	6.2	0.08	0.3	21	5.7 - 6.7
Proximal transverse width	6.4	0.10	0.3	21	5.8 - 7.3
Median dorso-ventral depth	4.4	0.05	0.2	21	4.1 - 4.9
Median transverse width	4.2	0.05	0.2	21	3.9 - 4.8
Distal dorso-ventral depth	4.1	0.03	0.2	19	3.8 - 4.5
Distal transverse width	5.3	0.08	0.3	21	4.8 - 5.9

Table 2.XL : Pedetes surdaster. Pes. Measurements of Ph.II of digit 3. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length	11.5	0.53	0.7	17	10.4 - 13.1
Proximal dorso-ventral depth	5.5	0.07	0.3	19	5.0 - 6.0
Proximal transverse width	5.2	0.11	0.3	19	4.7 - 5.8
Median dorso-ventral depth	3.8	0.04	0.2	19	3.5 - 4.2
Median transverse width	3.6	0.03	0.2	19	3.3 - 3.9
Distal dorso-ventral depth	3.7	0.03	0.2	18	3.3 - 4.3
Distal transverse width	4.3	0.08	0.3	17	3.7 - 4.7

Table 2.XLI : Pedetes surdaster. Pes. Measurements of Ph.II of digit 4. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length	6.4	0.11	0.3	12	6.0 - 6.9
Proximal dorso-ventral depth	4.0	0.09	0.3	15	3.5 - 4.7
Proximal transverse width	2.9	0.04	0.2	16	2.5 - 3.3
Median dorso-ventral depth	2.4	0.01	0.1	16	2.1 - 2.7
Median transverse width	2.3	0.02	0.1	16	2.0 - 2.5
Distal dorso-ventral depth	2.5	0.02	0.1	15	2.1 - 2.7
Distal transverse width	2.5	0.02	0.1	15	2.3 - 2.9

Table 2.XLII : Pedetes surdaster. Pes. Measurements of Ph.II of digit 5. Abbreviations heading columns as for Table 2.I.

Digit	Character	m	s^2	s	n	Range
2	Length	10.4	0.26	0.5	11	8.3 - 11.1
	Width	4.5	0.27	0.5	11	3.7 - 5.5
	Depth	4.0	0.02	0.2	11	3.7 - 4.3
3	Length	14.0	0.71	0.8	12	12.5 - 15.5
	Width	6.1	0.26	0.5	12	5.1 - 6.7
	Depth	4.6	0.07	0.3	12	4.3 - 5.3
4	Length	10.4	0.35	0.6	11	9.3 - 11.5
	Width	4.7	0.24	0.5	11	3.9 - 5.6
	Depth	4.0	0.06	0.2	11	3.5 - 4.5
5	Length	6.7	0.35	0.6	7	5.6 - 7.3
	Width	2.8	0.03	0.2	8	2.5 - 3.1
	Depth	2.7	0.02	0.1	8	2.5 - 2.9

Table 2.XLIII : Pedetes surdaster. Pes. Measurements of Ph.III. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Length of cranium	86.9	9.36	3.1	300	76.5 - 94.5
Length of nasals	32.2	4.44	2.1	315	25.7 - 38.7
Anterior width of nasals	12.8	0.54	0.7	294	10.2 - 15.1
Posterior width of nasals	20.4	1.83	1.4	321	16.3 - 25.2
Greatest width of nasals	20.9	1.67	1.3	319	17.1 - 25.2
Width of premaxilla edge	2.0	0.24	0.5	328	0.7 - 3.5
Zygomatic width	55.1	5.86	2.4	280	46.5 - 61.8
Length of frontals	31.3	2.57	1.6	318	26.9 - 35.3
Interorbital constriction	36.0	2.52	1.6	307	31.3 - 40.3
Width of braincase	40.0	1.48	1.2	297	36.6 - 43.4
Mastoid width	45.3	1.92	1.4	289	40.9 - 48.6
Width of interparietal	13.6	1.50	1.2	317	10.1 - 16.8
Length of left bulla	18.7	0.72	0.8	306	16.4 - 21.7
Length of right bulla	18.7	0.69	0.8	310	16.5 - 21.3
Depth of nasal wings	12.6	0.63	0.8	304	10.0 - 15.0
Depth of rostrum	31.1	1.39	1.2	316	27.8 - 34.0
Length of squamosal process	12.1	0.81	0.9	284	8.9 - 14.5
Width of squamosal process	0.8	0.05	0.2	302	0.3 - 1.5

Table 2.XLIV (part) : Pedetes capensis. Measurements of the cranium.

Character	m	s^2	s	n	Range
Depth of nasal opening	14.3	0.73	0.9	290	12.1 - 16.7
Width of nasal opening	11.7	0.37	0.6	282	9.3 - 13.3
Depth of palatal groove	6.3	0.37	0.6	321	4.5 - 7.9
Length of incisive foramina	7.4	0.94	1.0	316	4.5 - 10.3
Width of incisive foramina	4.1	0.18	0.4	323	3.1 - 5.5
Length of left diastema	20.1	0.88	0.9	317	17.0 - 22.3
Length of right diastema	20.0	0.91	1.0	316	17.2 - 22.5
Length of left tooth-row	19.1	0.98	1.0	317	15.2 - 22.1
Length of right tooth-row	19.1	0.96	1.0	311	15.4 - 22.1
Width : m^1 - m^1	17.5	0.51	0.7	312	15.3 - 20.5
Width of left m^1	3.7	0.07	0.3	296	2.9 - 4.5
Width of right m^1	3.7	0.06	0.3	288	2.9 - 4.5
Length of upper incisor	4.2	0.07	0.3	301	3.2 - 4.9
Width of upper incisor	4.1	0.07	0.3	309	3.3 - 5.1
Width of rostrum	24.9	2.93	1.7	318	20.5 - 30.0
Depth over lachrymal	35.0	2.10	1.5	319	29.5 - 38.4

Table 2.XLIV (continued) : Pedetes capensis. Measurements of the cranium. Abbreviations heading columns as for Table 2.I.

Character	m	s^2	s	n	Range
Depth at anterior edge of pm_4	16.6	0.83	0.9	311	14.2 - 19.3
Depth at condyle	31.6	3.48	1.9	293	23.9 - 36.1
Length of ramus	48.6	3.30	1.8	281	41.9 - 53.1
Length of toothrow	19.5	0.63	0.8	314	16.9 - 21.4
Length of diastema	8.8	0.37	0.6	311	7.3 - 10.5
Length of condyle	6.4	0.22	0.5	305	5.1 - 7.7
Width of condyle	3.8	0.15	0.4	305	2.7 - 5.3

Table 2.XLV : Pedetes capensis. Measurements of the mandible. Abbreviations heading columns as for Table 2.I.

Character	BM(NH) M21571	BM(NH) M21604	KNM-So 1496
Length	c 116		
Length of nasals	45.3		
Length of frontals	38 (Est.)	40 (Est.)	
Maximum width of nasals	16.8		
Posterior width of nasals	15.7		
Interorbital constriction	36.1	40 (Est.)	
Zygomatic width	61 (Est.)		
Mastoid width	c 52	c 60	
Width of interparietal	c 17	18.8	
Width of rostrum	23.7		
Depth of muzzle	38.3		
Height over lachrymal	43.5		
Incisive foramina :			
Length	8.9		9.3
Width	3.3		3.9
Length of diastema	28.7		
Left toothrow ($pm^4 - m^2$)	15		
Width : $m^1 - m^1$	22		
Width of m^1	5.1		
Incisors :			
Length	7.5		
Width	4.5		

Table 3.I : Megapedetes pentadactylus. Measurements of the holotype (BM(NH) M21571); the main paratype (BM(NH) M21604) and KNM-So 1496 cranial remains.

Incisors:

All the incisors associated with mandibles have a radius of curvature greater than or equal to 31mm whilst all the incisors associated with maxillae have a radius of curvature less than 30mm. It therefore seems reasonable to take a radius of curvature of 30mm as the dividing point for distinguishing upper and lower incisors that were not associated with recognisable fragments of bone. On this basis the following data were obtained:

	n	Mean	s^2	s	Range
Upper incisors					
Length	18	7.3	0.51	0.7	5.7 - 8.7
Width	19	4.3	0.33	0.6	3.3 - 5.0
Radius of curvature	20	26.5	3.80	1.9	22.5 - 30.0
Lower incisors					
Length	15	7.3	0.43	0.7	5.9 - 8.3
Width	18	4.3	0.21	0.5	3.3 - 5.0
Radius of curvature	21	34.8	7.03	2.7	31.0 - 40.0

Table 3.II : Megapedetes pentadactylus. Means, ranges, sample sizes (n), variances (s^2) and standard deviations (s) for the upper and lower incisors.

Specimen	Depth at pm_4	Length of diastema	Length of toothrow	Length of incisor	Width of incisor	Length of symphysis
BM(NH) M21572	c 25.7	12.7	20.9	6.7	3.8	28.3
BM(NH) M21607	c 29.5	12.5	23.3	7.5	4.0	32.9
BM(NH) M21573	c 25.5	13.5	c 21.4	6.9	3.8	30.8
BM(NH) M21608	c 30.6	12.2	24+	7.3	4.1	35.3
KNM-Ru 4023	26.9	12.7	20.8			32.1
KNM-Ru 4024	26.9	c 11.9	20.1			31.9
KNM-Ru 4050	27.1	c 13.9	18+	7.5	4.2	c 32.7
KNM-So 1499	22.0	9.9	21.5			c 24.9
KNM-So 1500	c 21	9.9	c 21			c 25.6
KNM-So 1507	23.1	10.3	c 20			27.7

Table 3.III : Megapedetes pentadactylus. Measurements of the mandibles.

Tooth	Length	Width
pm_4	3.6	3.9
m_1	4.0	4.7

Table 3.IV : Megapedetes pentadactylus. KNM-So 3909B. Measurements of the preserved teeth in a juvenile mandible.

Vertebra	Centrum			Neural arch	
	Length	Width	Depth	Width	Height
Lu1	12.3	14.1	8.5	9.4	7.0
Lu2	12.5	13.7	9.1	9.5	7.2
Lu3	13.2	13.7	9.2	10.0	7.2
Lu4	14.7	14.9	9.5	9.9	7.5
Lu5	15.1	16.0	9.0	10.0	7.7
Lu6	16.1	15.4+	c 8.6		

Table 3.V : Megapedetes pentadactylus. BM(NH) M21584. Measurements of the lumbar vertebrae in the holotype.

Measurement	Value
Length	25.1
Sacro-iliac expansion	48+
Width across Sa2	14.4+
Length of iliac support	18.7+

Table 3.VI : Megapedetes pentadactylus. BM(NH) M21585. Measurements of the sacrum in the holotype; where a region is damaged the minimum value of the measurement has been given, such measurements are denoted by a +.

Vertebra	Ca1	Ca2	Ca3	Ca4		Ca7
Length	12.4	13.2	13.7	13.5+		20 (Est)
Vertebra	Ca8	Ca9	Ca10	Ca11	Ca12	Ca13
Length	c 18.6	18.7	19.3	18.9	c 19.7	18.7
Vertebra	Ca14	Ca15		Ca21?		Ca30?
Length	19.2	18.5 (Est)		14.7		8.5

Table 3.VII : Megapedetes pentadactylus. Measurements of the caudal vertebrae; Ca1 - 4 are from the holotype (BM(NH) M21586), the remaining vertebrae come from LG.29/5.

Measurement	Value
Length	35.7
Depth of sternal end	5.5
Depth of scapular end	7.1

Table 3.VIII : Megapedetes pentadactylus. Measurements of the clavicle in the main paratype (BM(NH) M21601).

Measurement	BM(NH) M21600	BM(NH) M21612
Antero-posterior length of glenoid	12.3	13.3
Transverse width of glenoid	9.0	8.7
Length of posterior edge	54.2	c 54
Length of spine	c 70	65+
Width of acromion	7.9	c 8

Table 3.IX : Megapedetes pentadactylus. Measurements of the scapulae from the main paratype.

Measurement	BM(NH) M21575	BM(NH) M21588	BM(NH) M21613	BM(NH) M21614
Length	63.9	60+	64.7	63.9
Antero-posterior depth of head		14.1	14.5	14.5
Transverse width of head		12.4	13.1	13.1
Epicondylar width	20.7	16.7+	c 17.6	21.3

Table 3.X : Megapedetes pentadactylus. Measurements of the humeri in the holotype and the main paratype.

Measurement	BM(NH) M21589	BM(NH) M21602	BM(NH) M21615	LG.29/5
Length	53.5+	53.9	55.3	40+
Proximal end (Max. depth)	7.5	7.9	8.1	6.9
Proximal end (Min. depth)	5.1	5.5	5.6	5.1
Distal antero-posterior depth	6+	6.5	6.5	
Distal transverse width	9+	10.1	10.1	

Measurement	BM(NH) M21603	BM(NH) M21615
Length	64+	65.8+

Table 3.XI : Megapedetes pentadactylus. Measurements of the radii (upper part of table) and ulnae (lower part of table).

Bone	BM(NH) M21576	BM(NH) M21591	BM(NH) M21592
Metacarpal II	13.5		
Metacarpal III	21.5	20.9	
Metacarpal IV	16.9	17.0	
Metacarpal V	13.1		
Phalanx I			
Digit 2	9.8		
Digit 3	12.1		12.3
Digit 4	11.1		
Digit 5	9.5		
Phalanx II			
Digit 3	8.7		
Digit 4	7.9		
Digit 5	6.8		
Phalanx III			
Digit 3	5.5+		
Digit 4	9.5+		

Table 3.XII : Megapedetes pentadactylus. Lengths of the metacarpals and phalanges in the holotype.

Measurement	BM(NH) M21578	BM(NH) M21594	BM(NH) M21616	LG.29/5
Length	130+	132.5		116.1
Length : head to condyles	120.3	c 121		105 (Est)
Median antero-posterior depth	11.1	11.5		10.3
Median transverse width	11.7	12.5		10.7
Condylar width	c 28	c 25	24.5	25.6

Table 3.XIII : Megapedetes pentadactylus. Measurements of the femur.

Measurement	BM(NH) M21595
Length	17.5
Width	11.9
Thickness	5.9

Table 3.XIV : Megapedetes pentadactylus. BM(NH) M21595. Measurements of the patella in the holotype.

Measurement	BM(NH) M21579 + BM(NH) M21597	BM(NH) M21580 + BM(NH) M21596	Sgr. 248'48	LG.29/5
Length				132.5
Proximal antero-posterior depth	25.5			25.5
Proximal transverse width	27.5			27.4
Median antero-posterior depth	12.1	c 10		11.9
Median transverse width	10.5	10.3		10.1
Distal antero-posterior depth	13.3	c 13.3	12.1	12.3
Distal transverse width	17.1	17.1	16.7	c 17.5

Table 3.XV : Megapedetes pentadactylus. Measurements of the tibia.

Measurement	BM(NH) M21617	KNM-Ru 4045	KNM-Ru 4051	LG.29/5
Length	28.5	26.1+	27.3	25.0
Length of medial side	25.7	24.9	23.5	22.3
Length of neck & head	13.5	13.5	12.9	12.5
Proximal transverse width	16.7	17.8	14.6	c 15.3
Transverse width of head	11.1	13.9	12.5	11.0

Table 3.XVI : Megapedetes pentadactylus. Measurements of the astragalus.

Measurement	BM(NH) M21598	BM(NH) M21617	LG.29/5
Length	35+	46.5	39.8
Greatest width	14.7	16.4	14.3
Greatest depth	14.5	16.3	14.6
Length of tuber calcis		26.1	21.5
Width of tuber calcis	6.5	8.1	8.6
Depth of tuber calcis	12.4	13.9	11.6

Table 3.XVII : Megapedetes pentadactylus. Measurements of the calcaneum.

Measurement	LG.29/5
Length	6.9
Width	11.9
Depth	15.5
Length of plantar process	12.2

Table 3.XVIII : Megapedetes pentadactylus. LG.29/5. Measurements of the navicular.

Measurement	BM(NH) M21580	BM(NH) M21598	LG.29/5
Length	c 16.7		16.1
Width	11.1	10.7	11.1
Depth		11.1	10.5

Table 3.XIX : Megapedetes pentadactylus. Measurements of the cuboid.

Measurement	BM(NH) M21598
Length	19.9
Median depth	7.3
Median thickness	2.8
Length of process	10.5

Table 3.XX : Megapedetes pentadactylus. BM(NH) M21598. Measurements of the first cuneiform.

	Length	Width	Depth
Second cuneiform			
LG.29/5 (Right)	5.3	5.1	9.2
Third cuneiform			
BM(NH) M21580	9.1	6.1	
BM(NH) M21598	9.5	6.3	9.9
LG.29/5 (Right)	8.9	5.7	10.1
LG.29/5 (Left)	8.7	5.7	10.3

Table 3.XXI : Megapedetes pentadactylus. Measurements of the second and third cuneiforms of the pes.

Number	Side	Length	Median width	Median depth
BM(NH) M21580	Left	32.5		4.0+
BM(NH) M21595	Right	31.0	3.8	4.7
BM(NH) M21618	Right	32.5		4.1
BM(NH) M21619	Left	31.0		4.3
LG.29/5	Right	c 28.6	3.7	4.3
LG.29/5	Left	31.1	3.9	4.1

Table 3.XXII : Megapedetes pentadactylus. Measurements of the first metatarsal (Mt.I).

Number	Side	Length	Proximal dorso-ventral depth	Proximal transverse width	Median dorso-ventral depth	Median transverse width	Distal dorso-ventral depth	Distal transverse width
BM(NH) M21580	Lt	48.1		7.0		5.7		c 7.0
BM(NH) M21618	Rt	48.3		7.0		6.0		8.1
BM(NH) M21619	Lt	48.3		6.5		5.5		8.1
KNM-Ru 4057A	Lt		7.1	6.1				
Sgr 259'49	Lt				c 5.6	c 5.4	7.3	6.9
LG29/5	Rt	43.7	11.2	6.5	5.5	5.9	7.6	7.3
LG29/5	Lt	c 38.5	11.5	6.3	5.6	6.1	7.6	7.5

Table 3.XXIII : Megapedetes pentadactylus. Measurements of metatarsal II (Mt.II).

Number	Side	Length	Proximal dorso-ventral depth	Proximal transverse width	Median dorso-ventral depth	Median transverse width	Distal dorso-ventral depth	Distal transverse width
BM(NH) M21580	Lt	54.7		8.2		6.2		8.6
BM(NH) M21618	Rt		12.2	7.9		6.5		
BM(NH) M21619	Lt		12.2	7.7	6.4	6.1		
KNM-Ru 4057A	Lt		9.7	7.1				
Sgr 259'49	Lt				c 5.7	c 6.1	7.0	7.9
LG29/5	Rt	48.9	10.5	7.5	5.6	6.1	7.0	8.1
LG29/5	Lt	49.1	10.4	7.5	5.7	6.5	7.1	8.1

Table 3.XXIV : Megapedetes pentadactylus. Measurements of metatarsal III (Mt.III).

Number	Side	Length	Proximal dorso-ventral depth	Proximal transverse width	Median dorso-ventral depth	Median transverse width	Distal dorso-ventral depth	Distal transverse width
BM(NH) M21580	Lt	44.6		7.1		5.0		6.3
BM(NH) M21598	Rt						c 6.1	6.5
BM(NH) M21618	Rt	44.9	11.1	8.7		5.5	7.6	7.0
BM(NH) M21619	Lt	44.6	10.9	8.1		5.7	7.5	7.0
KNM-Ru 4057A	Lt		8.7	7.3				
Ru 192'50	Rt				c 4.3	c 5.2	7.3	6.7
LG29/5	Rt	c 42.0	9.9	7.7	4.5	4.9	6.7	6.7
LG29/5	Lt	41.5	9.7	7.9	4.8	5.1	6.9	6.4

Table 3.XXV : Megapedetes pentadactylus. Measurements of metatarsal IV (Mt.IV).

Number	Side	Length	Proximal dorso-ventral depth	Proximal transverse width	Median dorso-ventral depth	Median transverse width	Distal dorso-ventral depth	Distal transverse width
BM(NH) M21580	Lt	36.7		c 5.8		3.6		5.1
BM(NH) M21598	Rt				4.0	3.9	6.1	5.5
BM(NH) M21618	Rt	33.6	7.4	6.4	3.9	3.9	6.3	5.9
BM(NH) M21619	Lt	32.0	7.6	c 4.6	4.4	3.9	6.3	5.9
KNM-Ru 4057A	Lt		5.6	3.5				
Sgr 266'49	Rt				3.7	3.4	c 5.7	5.4
LG29/5	Rt	33.7	7.5	5.4	3.9	3.7	6.3	5.7

Table 3.XXVI : Megapedetes pentadactylus. Measurements of metatarsal V (Mt.V).

Digit	Side	Length	Proximal dorso-ventral depth	Proximal transverse width	Median dorso-ventral depth	Median transverse width	Distal dorso-ventral depth	Distal transverse width
1	Lt	17.5	5.9	5.6	4.1	3.5	3.7	3.9
1	Rt	17.5	6.0	c 5.4	4.1	3.4	3.7	3.9
2	Lt	21.9	6.9	7.7	5.1	4.8	4.7	6.1
2	Rt	c 22.2	c 7.1		5.2	4.7	4.8	6.1
3	Lt	c 23.5	6.9	8.5	4.7	5.3	c 4.9	c 6.8
3	Rt	23.7	6.9	8.5	4.9	5.4	4.7	6.7
4	Lt	20.3	6.3	6.9	4.7	3.9	4.3	5.5
4	Rt	20.5	6.5	6.8	4.7	4.0	4.5	5.5
5	Lt	17.1	5.8	5.8	4.2	3.3	3.5	4.3
5	Rt	16.8	5.7	5.7	4.2	3.2	3.5	4.3

Table 3.XXVII : Megapedetes pentadactylus. LG29/5. Measurements of the first phalanges (Ph.I) of the pes.

Number	Digit	Side	Length	Proximal dorso-ventral depth	Proximal transverse width	Median dorso-ventral depth	Median transverse width	Distal dorso-ventral depth	Distal transverse width
KNM-So 1981			11.9	5.1	5.3	3.5	3.9	3.7	4.3
LG29/5	2	Lt	15.3	6.3	6.5	4.3	4.5	4.0	5.0
LG29/5	2	Rt	15.5	6.1	6.5	4.3	4.5	4.0	5.1
LG29/5	3	Lt	15.9	6.5	7.1	4.3	4.9	4.2	5.5
LG29/5	3	Rt	15.9	6.3	7.1	4.2	4.9	4.1	5.5
LG29/5	4	Rt	13.5	5.6	6.1	3.7	4.2	3.7	4.8

Table 3.XXVIII : Megapedetes pentadactylus. Measurements of the second phalanges (Ph.II) of the pes.

Measurement	Value
Length	10.8
Width	3.7
Depth	4.5

Table 3.XXIX : Megapedetes pentadactylus. LG.29/5.
Measurements of phalanx III (Ph.III) of left digit 1.

Measurement	1926X15a	1926X15b	1926X501
Length		c 55	56
Length of nasals			17.5 (Est.)
Posterior width of nasals	5.2 (Est.)		6.1
Greatest width of nasals			8.6
Length of frontals			15.2
Interorbital constriction		c 11	12.0
Width of rostrum			10 (Est.)
Greatest zygomatic width		27 (Est.)	31 (Est.)
Left diastema	c 11.5	c 11.1	11.6
Right diastema	c 11.1	c 11.5	11.9
Left toothrow	c 10	c 10.7	10.3
Right toothrow		c 10.7	10.3
Width m^1 - m^1		c 11.0	10.4
Left m^1 : Length		c 2.1	2.1
Width		2.8	2.4
Right m^1 : Length		c 2.0	c 2.2
Width		c 2.2	c 2.2
Incisor : Length	3.5		2.9
Width	1.8		1.4
Radius of curvature			9.5

Table 4.I : Parapedetes namaquensis. Measurements of crania belonging to the type specimens. 1926X15a has been designated as the lectotype.

Measurement	1926X15a	1926X510U
Depth at pm_4		8.0
Length of toothrow		11.4
Depth at condyle		13.7
Length of incisor	c 3.0	3.7
Width of incisor	1.6	

Table 4.II : Parapedetes namaquensis. Measurements of the preserved mandibles.

1926X502		Isolated	
Tooth	Width	Length	Width
pm_4	2.9	2.4	2.8
m_1	3.1	2.1	2.9
m_2	2.9	2.0	2.7
m_3	2.3		

Table 4.III : Parapedetes namaquensis. Measurements of the cheekteeth in 1926X502 and the isolated cheekteeth associated with 1926X15. The positions given apply only to 1926X502; the positions of the isolated cheekteeth are not known.

Vertebra	1926X510I	1926X15a	1926X15d	1926X15f	1926X15h
Axis		6.3			
Ce3		3.1			
Ce4		2.6			
Ce5		2.3			
Ce6		2.5			
Ce7		2.8			
Th3		3.4			
Th4		3.9			
Th5					3.7
Th6		4.3			4.3
Th7		4.5			4.3
Th8		4.9	5.1		4.7
Th9	5.7	5.1	5.5		5.4
Th10	6.4	5.9	6.3		6.0
Th11	6.4	7.1	6.5		6.5
Th12	7.6	7.1		7.1	

Table 4.IV : Parapedetes namaquensis. Lengths of the vertebral centra in the cervical and thoracic series.

Vertebra	1926X510I	1926X510 J+K	1926X15a	1926X15d	1926X15f
Lu1	7.7		7.6		7.6
Lu2	8.5		8.3	8.9	
Lu3			8.9	9.3	
Lu4			9.9	9.9	
Lu5			10.1		
Lu6			9.9		
Lu7			8.1		
Sacrum			19.0		
Ca1		5.7			
Ca2		6.0			
Ca3		5.9	5.7		
Ca4		5.9	5.9		
Ca5		6.3	5.7		
Ca6		7.3	5.9		
Ca7		7.9	6.1		
Ca8		8.7	7.1		
Ca9		8.7	7.7		
Ca10		9.3	8.1		
Ca11			8.4		
Ca12			9.0		

Table 4.V : Parapedetes namaquensis. Lengths of the vertebral centra in the lumbar, sacral and caudal series.

Specimen	Bone	Width
1926X510M	Manubrium sterni	7.3

Table 4.VI : Parapedetes namaquensis. Measurement of the manubrium sterni.

Specimen & bone	Measurement	Value
1926X15a Left humerus	Length	c 26.7
1926X15a Left ulna	Length	36.5
1926X15a Left radius	Length	29.5 (Est.)
1926X510P Right radius	Length	24+
1926X510Q Phalanx I	Length Breadth	4.3 1.3
1926X510R Right femur	Length Length : head to condyles Median transverse width Condylar width	62.6 58.5 c 6.2 11.7
1926X511 Right tibia	Length Proximal antero-posterior depth Proximal transverse width Distal antero-posterior depth Distal transverse width	90.3 13.8 9.7 (Est.) c 5.5 7.1

Table 4.VII : Parapedetes namaquensis. Measurements of the bones from the forelimb and the hindlimb except the pes.

Bone	Measurement	Value
1926X510C Right astragalus	Length	c 9.5
1926X510E Left calcaneum	Overall length	18.3
	Maximum depth	7.3
	Maximum breadth	6.5
	Length of tuber calcis	11.1
	Depth of tuber calcis	4.5
	Width of tuber calcis	4.3
1926X510C Right calcaneum	Overall length	18
	Maximum depth	7
	Length of tuber calcis	10.3
1926X510C Right cuboid	Length	4.3
	Depth	4.2
1926X510B Left first cuneiform	Length	8
	Thickness	0.9
1926X510B Left third cuneiform	Length	4.1
	Width	3.1

Table 4.VIII : Parapedetes namaquensis. 1926X510. Measurements of some tarsal bones.

Measurement	1926X510A	1926X510B	1926X510C
Length		29.4	28.2
Proximal transverse width		2.4	
Median dorso-ventral depth		2.6	
Median transverse width		2.6	2.8
Distal dorso-ventral depth		3.6	
Distal transverse width	3.5	3.0	3.5

Table 4.IX : Parapedetes namaquensis. Measurements of metatarsal II.

Measurement	1926X510A	1926X510B	1926X510C	1926X510D
Length		33.7	34.6	
Proximal transverse width		3.1		
Median dorso-ventral depth				2.4
Median transverse width	2.9	2.8		2.7
Distal dorso-ventral depth		3.7		
Distal transverse width	3.8	3.6	4.0	3.5

Table 4.X : Parapedetes namaquensis. Measurements of metatarsal III.

Measurement	1926X510A	1926X510B	1926X510C	1926X510D
Length	34.6	35.3	36.2	
Proximal dorso-ventral depth	c 3.7		4.1	
Proximal transverse width	2.6			
Median dorso-ventral depth	2.7			2.4
Median transverse width	2.4			2.6
Distal dorso-ventral depth				3.5
Distal transverse width	3.5	3.6	3.9	3.4

Table 4.XI : Parapedetes namaquensis. Measurements of metatarsal IV.

Measurement	1926X510A	1926X510D
Median dorso-ventral depth		1.2
Median transverse width	1.2	1.5
Distal transverse width	c 2.0	2.3

Table 4.XII : Parapedetes namaquensis. Measurements of metatarsal V.

Bone	Specimen	Digit 2	Digit 3	Digit 4	Digit 5
Phalanx I	A	11.3	14.5	14.7	c 8.8
	B		15.9	c 16.1	
	C	12.6	15.7		
	D			15.3	c 8.6
Phalanx II	A	c 5.2	6.1	6.2	3.1
	B		6.9		
	D			6.0	3.3
	G			6.5	
Phalanx III	A	5.6	6.9	6.5	3.6

Table 4.XIII : Parapedetes namaquensis. 1926X510. Lengths of the phalanges preserved in the block.

Measurement	'79.5514	'75.1673
Length of cranium	71.9	72.7
Length of nasals	25.1	24.9
Length of frontals	27.7	26.7
Length of parietals	13.2	15.4
Length of interparietal	8.3	8.3
Posterior width of nasals	13.1	13.9
Breadth of rostrum	17.5	17.7
Interorbital constriction	26.5	25.5
Zygomatic width	c 45	42.5 (Est.)
Width of interparietal	10.7	9.7
Width across mastoid bullae	39.3	37.9
Depth of rostrum	22.7	21.1
Depth of palatal groove	c 3.5	c 1.7
Left diastema	c 17.3	17.0
Right toothrow	c 13.5	
Incisive foramina :		
Length	c 5.5	6.0
Width	2.0	2.1
Incisors :		
Length	3.4	3.5
Width	3.1	3.3

Table 5.I : Pedetes laetoliensis sp. n. Measurements of the cranium in the holotype ('79.5514) and '75.1673.

Measurement	'79.5514	'75.460	'76.3603	'75.459
Depth at pm_4	13.4		12.3	11.9
Diastema	6.8	6.5	6.7	7.3
Toothrow	c 14.5	15.3	15.3	14.3
Incisor :				
Length	2.9	2.9	3.0	2.9
Width	3.1	2.8	2.9	2.9

Table 5.II : Pedetes laetoliensis sp. n. Measurements of the mandible in the holotype ('79.5514) and 3 other specimens. In the case of '75.460 the measurements are taken from the left ramus.

Tooth	Measurement	n	Mean	Range
Incisor	Length	7	3.3	3.1 - 3.5
	Width	7	3.1	2.7 - 3.3
pm^4	Length	4	3.1	2.9 - 3.2
	Width	6	3.0	2.9 - 3.1
m^1	Length	7	2.9	2.6 - 2.9
	Width	18	3.2	2.7 - 3.7
m^2	Length	6	3.0	2.9 - 3.3
	Width	8	3.3	3.1 - 3.5
m^3	Length	4	2.9	2.8 - 3.1
	Width	5	3.1	3.0 - 3.3

Table 5.III : Pedetes laetoliensis sp. n. Mean measurements and ranges, with sample size (n), for the upper dentition.

Tooth	Measurement	n	Mean	Range
Incisor	Length	9	3.0	2.6 - 3.3
	Width	9	3.0	2.7 - 3.3
pm_4	Length	3	3.4	3.3 - 3.7
	Width	16	3.4	3.1 - 3.6
m_1	Length	10	3.0	2.8 - 3.5
	Width	25	3.4	2.9 - 4.0
m_2	Length	6	3.2	2.9 - 3.9
	Width	21	3.3	2.9 - 3.9
m_3	Length	6	3.0	2.7 - 3.2
	Width	13	3.1	2.7 - 3.3

Table 5.IV : Pedetes laetoliensis sp. n. Mean measurements and ranges, with sample sizes (n), for the lower dentition.

Vertebra	Length	Vertebra	Length	Vertebra	Length
Axis	c 6.9	Th3	4.2	Lu4	11.5
Ce3	c 3.0	Th6	5.7	Lu5	11.6
Ce4	3.3	Th?	4.7	Lu6	11.6
Ce5	3.2				
Ce6	3.0				
Ce7	3.4				

Table 5.V : Pedetes laetoliensis sp. n. Lengths of the cervical, thoracic and lumbar vertebrae preserved in the holotype ('79.5514).

Vertebra	Width	Vertebra	Width
Th3	6.3	Lu4	10.9
Th6	5.7	Lu5	11.2
Th?	5.7	Lu6	11.6

Table 5.VI : Pedetes laetoliensis sp. n. Posterior widths of the centra of the preserved thoracic and lumbar vertebrae in the holotype ('79.5514).

Vertebra	Length	Vertebra	Length	Vertebra	Length
Ca12	16.2	Ca17	14.0	Ca22	12.1
Ca13	16.1	Ca18	13.4	Ca23	10.7
Ca14	15.7	Ca19	13.4		
Ca15	15.1	Ca20	12.9	Ca26	8.4
Ca16	14.7	Ca21	12.5		

Table 5.VII : Pedetes laetoliensis sp. n. Lengths of the caudal vertebrae preserved in the holotype ('79.5514).

Measurement	'79.5514 (Lt.)	'79.5514 (Rt.)	LIT.'59.125
Length			c 34.5
Antero-posterior width of head			8.3
Transverse width of head			8.1
Distal antero-posterior depth	4.5	3.9	
Distal transverse width	10.1	9.7	11.1

Table 5.VIII : Pedetes laetoliensis sp. n. Measurements of the humerus in the holotype ('79.5514) and LIT.'59.125.

Bone	Measurement	Left	Right
Ulna	Length	43.0	39 (Est.)
	Length of olecranon process	2.7	
Radius	Length	37.0	35.5
	Proximal end (Max. width)	c 2.8	3.1
	Proximal end (Min. width)	c 2.8	2.9
	Antero-posterior depth of distal end	3.1	3.3
	Transverse width of distal end	4.9	4.7

Table 5.IX : Pedetes laetoliensis sp. n. Measurements of the ulna and radius in the holotype ('79.5514).

Bone	Specimen	Measurement	Value
Right Innominate	'79.5514	Length of ilium	44.7
		Depth of ilium	16.5
Right Femur	'79.5514	Length	85.3
		Median antero-posterior depth	6.5
		Median transverse width	7.4
		Transverse width of condyles	15.6
Right Patella	'79.5514	Length	13.0
		Breadth	6.5
Right Tibia	'79.5514	Length	108
		Antero-posterior depth of head	17.5
		Transverse width of head	18.5
		Distal antero-posterior depth	7.3
		Distal transverse width	9.9
Left Tibia	'75.2717 + '76.3803	Length	104.1
		Antero-posterior depth of head	16.1
		Transverse width of head	c 15.5
		Distal antero-posterior depth	7.1
		Distal transverse width	10.1
Right Tibia	'75.2932	Length	100 (Est.)
		Antero-posterior depth of head	17.5
		Transverse width of head	17.1
		Distal antero-posterior depth	7.4
		Distal transverse width	10.5

Table 5.X : Pedetes laetoliensis sp. n. Measurements of some bones of the hindlimb, excluding the pes.

Measurement	'79.5514	'75.1697	'75.3167	LIT.'59 211	LIT.'59 125
Length	c 29.5	28.0	29.4	31.1	29.1
Width	c 7.0	7.3			7.1
Depth	c 8.9	8.6	8.7	8.7	8.5
Length of tuber calcis	c 12.5	12.3	13.4	13.7	13.0
Breadth of tuber calcis	5.9	5.1	5.1	4.9	5.5
Depth of tuber calcis	6.7	6.7	6.5	6.5	6.5

Table 5.XI : Pedetes laetoliensis sp. n. Measurements of some calcanea.

Measurement	'79.5514	'75.546	'75.1623	'75.3327	'76.3878
Length	18.9	18.9	19.8	19.4	18.7
Length of neck & head	10.0	9.9	10.8	10.8	9.9
Transverse width of body	7.5	7.1	8.1	7.8	7.8
Transverse width of head	6.7	6.7	7.1	6.5	6.7

Table 5.XII : Pedetes laetoliensis sp. n. Measurements of some astragali.

Measurement	'79.5514 (Lt.)	'79.5514 (Rt.)	'75.460	'75.1745D
Dorsal length	4.4	4.9	5.3	4.9
Width	4.9	4.4		5.5
Depth	9.2	9.4	9.1	9.1
Length of plantar process	12 (Est.)	12.5	12.2	11.9

Table 5.XIII : Pedetes laetoliensis sp. n. Measurements of all the preserved naviculars.

Measurement	'79.5514 (Lt.)	'79.5514 (Rt.)	'75.460
Length	11.7 (Est)	11.7	c 11.6
Width	4.8	4.8	
Depth	6.3	6.3	c 5.2

Table 5.XIV : Pedetes laetoliensis sp. n. Measurements of all the preserved cuboids.

Bone	Measurement	Left	Right
First cuneiform	Length		c 14.9
	Depth		4.4
Second cuneiform	Length	2.9	3.2
	Dorso-ventral depth	5.1	
	Transverse width	2.8	2.5
Third cuneiform	Length	c 6.4	6.5
	Dorso-ventral depth	5.6	
	Transverse width	3.8	4.0

Table 5.XV : Pedetes laetoliensis sp. n. Measurements of the cuneiforms in the pes of the holotype ('79.5514).

Bone	Measurement	n	Mean	Range
Femur	Antero-posterior depth of condyles	7	16.1	14.1 - 17.3
	Transverse width of condyles	10	15.8	15.1 - 16.4
Tibia	Antero-posterior depth of head	7	16.5	14.5 - 17.5
	Transverse width of head	5	17.2	16.6 - 18.5
	Distal antero-posterior depth	13	7.1	6.7 - 7.4
	Distal transverse width	14	10.2	9.9 - 10.8
Calcaneum	Length	8	29.3	28.0 - 31.1
	Width	3	7.3	7.1 - 7.5
	Depth	5	8.6	8.5 - 8.7
	Length of tuber calcis	7	12.9	11.7 - 13.7
	Width of tuber calcis	10	5.4	4.9 - 5.9
	Depth of tuber calcis	11	6.6	6.4 - 7.1
Astragalus	Length	6	19.2	18.7 - 19.8
	Length of neck & head	6	10.4	9.9 - 11.3
	Transverse width of body	8	7.7	7.1 - 8.3
	Transverse width of head	5	6.7	6.5 - 7.1

Table 5.XVI : Pedetes laetoliensis sp. n. Mean measurements and ranges, with sample size (n), for the hindlimb long bones and the two proximal tarsals.

Measurement	Metatarsal II			Metatarsal III	
	'79.5514	'75.546	LIT.'59 125	'79.5514	'75.460
Length	38.0	36.4	c 39.9	40.8	40.9
Proximal dorso-ventral depth	c 5.5	5.7	5.8		c 5.2
Proximal transverse width	3.0	3.7	3.9	4.1	4.7
Median dorso-ventral depth	4.1	3.7	3.7		c 3.5
Median transverse width	3.4	3.5	3.4	3.9	3.9
Distal dorso-ventral depth	4.7	4.5	4.7	4.1	c 4.8
Distal transverse width	4.9	4.9	4.9	5.2	5.3

Table 5.XVII : Pedetes laetoliensis sp. n. Measurements of some examples of metatarsal II and metatarsal III.

Measurement	Metatarsal IV		Metatarsal V
	'79.5514	'75.460 (Rt.)	'79.5514
Length	c 33.5	c 32.8	c 25.8
Proximal dorso-ventral depth		c 5.0	5.4
Proximal transverse width	5.0	c 4.8	c 1.8
Median dorso-ventral depth			c 2.7
Median transverse width	3.3		
Distal dorso-ventral depth	3.9	c 4.1	c 2.7
Distal transverse width	4.0	c 4.5	

Table 5.XVIII : Pedetes laetoliensis sp. n. Measurements of some examples of metatarsal IV and metatarsal V.

	Length	Proximal dorso-ventral depth	Proximal transverse width	Median dorso-ventral depth	Median transverse width	Distal dorso-ventral depth	Distal transverse width
Digit 2							
Laet.'79 5514	c 16.4	4.6	4.9	3.3	3.1		
Mean	17.2	4.5	4.9	3.4	2.9	2.9	3.5
Sample size	3	3	3	3	3	2	2
Range	16.4 - 18.3	4.3 - 4.7	4.8 - 5.1	3.3 - 3.6	2.9 - 3.1	2.9 - 3.0	3.4 - 3.5
Digit 3							
Laet.'79 5514	18.2	4.5	5.1	3.1	3.4	2.9	3.9
Mean	17.9	4.5	5.0	3.2	3.2	3.0	3.8
Sample size	5	5	5	5	5	5	5
Range	17.3 - 18.5	4.3 - 4.6	4.7 - 5.2	3.1 - 3.3	2.7 - 3.5	2.9 - 3.1	3.3 - 4.0
Digit 4							
Mean	16.7	4.1	4.5	3.2	2.5	2.9	3.5
Sample size	3	3	3	3	3	3	3
Range	16.2 - 17.5	3.8 - 4.3	4.4 - 4.5	3.0 - 3.3	2.3 - 2.7	2.7 - 2.9	3.5 - 3.5

Table 5.XIX : Pedetes laetoliensis sp. n. Measurements of Ph.I in digits 2 - 4.

Measurement	'79.5514			'75.2932
	Dt.2	Dt.3	Dt.4	Dt.5
Length	c 10.5	13.1	10.5	7.5
Proximal dorso-ventral depth	4.3	4.3	3.9	3.0
Proximal transverse width	4.0	4.5	4.1	2.6
Median dorso-ventral depth	3.1	2.9	2.9	1.9
Median transverse width	2.7	2.8	2.6	1.7
Distal dorso-ventral depth	2.8	2.9	2.7	2.0
Distal transverse width	2.9	3.2	2.9	2.0

Table 5.XX : Pedetes laetoliensis sp. n. Measurements of second phalanges (Ph.II) of the pes in the holotype ('79.5514) and, for digit 5 (Dt.5), in '75.2932.

Measurement	A	B
Dorso-ventral depth	3.0	2.9
Transverse width	3.7	3.9

Table 5.XXI : Pedetes laetoliensis sp. n. Measurements of the two third phalanges (Ph.III) preserved in the holotype ('79.5514). The digits from which these bones come are not known.

Depth at pm_4	11.8	Length of diastema	5.9
Depth at condyle	c 22	Length of toothrow	13.8
Length of condyle	5.1	Length of incisor	3.1
Width of condyle	3.3	Width of incisor	2.6

Table 6.I : c.f. Parapedetes namaquensis. SAM-PQ 2121. Measurements of the mandible.

	Length	Width	Radius of curvature.
Upper	3.5	2.7	12.8
Upper	3.5	2.7	13.1
Lower	3.1	2.6	18.1

Table 6.II : c.f. Parapedetes namaquensis. SAM-PQ 2121. Measurements of the isolated incisors.

Tooth	Length	Width	Tooth	Length	Width
Pm^4	3.3	3.1	Pm^4	3.2	3.1
Rt. pm_4 ?	3.1	3.1	M3 ?	2.6	2.9
	2.7	3.3		3.1	3.5
	3.0	3.5		3.0	3.5
	2.7	3.3		3.1	3.5

Table 6.III : c.f. Parapedetes namaquensis. SAM-PQ 2121. Measurements of the isolated cheekteeth.

Vertebra	Length of centrum
Thoracic	5.8
Caudal 3	6.7
Caudal 7	12.8

Table 6.IV : c.f. Parapedetes namaquensis. SAM-PQ 2121. Measurements of the remains of vertebral centra.

Bone	Measurement	Value
Rt. clavicle	Scapular end (Max. width)	2.5
	Scapular end (Min. width)	1.3
Lt. clavicle	Length	15.5
	Sternal end (Max. width)	3.1
	Sternal end (Min. width)	2.1
	Scapular end (Max. width)	2.5
	Scapular end (Min. width)	1.3
Humerus	Proximal antero-posterior depth	6.1
	Proximal transverse width	6.5
Left radius	Length	31.3
	Proximal end (Max. width)	2.9
	Proximal end (Min. width)	2.3
	Distal transverse width	4.0
	Distal antero-posterior depth	2.9
Right radius	Proximal end (Max. width)	c 2.7
	Proximal end (Min. width)	c 2.0
Scapho-lunar	Proximo-distal length	2.7
	Dorso-ventral depth	1.9
	Transverse width	3.7
Metacarpal I	Length	2.7
Phalanx I Digit ?	Length	4.7
	Width	1.3
	Depth	1.5

Table 6.V : c.f. Parapedetes namaquensis. SAM-PQ 2121. Measurements of the forelimb bones.

Bone	Measurement	Value
Femur	Condylar width	c 11.8
Patella	Length	8.9
	Width	6.5
	Thickness	2.9
Left calcaneum	Overall length	c 21.6
	Maximum width	7.4
	Maximum depth	7.9
	Length of tuber calcis	c 11.7
	Width of tuber calcis	c 4.0
	Depth of tuber calcis	c 5.7
Right navicular	Dorsal length	3.3
	Depth	8.7
	Width	5.4
	Length of plantar process	7.9

Table 6.VI : c.f. Parapedetes namaquensis. SAM-PQ 2121. Measurements of the bones of the hindlimb excluding the metatarsals and phalanges.

Measurement	Proximal rt. Mt.II	Proximal lt. Mt.I	Lt. digit 5 : Ph.I
Length			10.3
Proximal dorso-ventral depth	c 5.5	4.7	2.8
Proximal transverse width	3.5	2.2	2.3
Median dorso-ventral depth	3.7		1.9
Median transverse width	3.0		1.5
Distal dorso-ventral depth			1.7
Distal transverse width			1.7

Table 6.VII : c.f. Parapedetes namaquensis. SAM-PQ 2121. Measurements of the preserved bones from the metatarsus and digits.

SAM-PQ-AD 1745			
Measurement	Value	Measurement	Value
Depth anterior to pm_4	19.7	Length of incisor	4.6
Length of diastema	c 8.7	Width of incisor	2.7

	Length	Width
SAM-PQ-AD 1746	3.9	4.3
SAM-PQ-AD 1747	3.9	4.6

Table 6.VIII : Megapedetes c.f. pentadactylus. Measurements of the material from Arrisdrift, now housed in the South African Museum.

Specimen		Length	Width	Radius of curvature
KNM-Mb 429	Molar	2.8	3.1	
KNM-Mb 431	Molar		3.2	
Ru 362'52	Incisor	c 5.0	c 3.0	
Ru 741'59	Incisor	4.9	2.5	c 9.5

Table 6.IX : Gen. et sp. indet. Measurements of dentition.

Measurement.	Ru 700'56 I	Ru 700'56 II
Maximum depth	7.3	6.5
Maximum width	c 6.0	
Length of tuber calcis	11.3	10.6
Depth of tuber calcis	5.3	5.1
Width of tuber calcis	3.7	3.5

Table 6.X : Gen. et sp. indet. Measurements of the two calcanea, Ru 700'56.

Number	Bone	Length	Proximal dorso-ventral depth	Proximal transverse width	Median dorso-ventral depth	Median transverse width	Distal dorso-ventral depth	Distal transverse width
Mb.	Rt. Mt.II	33.1	6.8	3.0	3.3	3.1	4.3	4.1
Ru 514'47	Rt. Mt.III		5.3	c 4.2	3.1	c 3.2		
Ru 514'47	Rt. Mt.IV		4.7	c 2.6	2.5	c 2.5		
FT/67	Ph.I	12.5	3.9	4.1	3.1	2.3	2.7	2.9

Table 6.XI : Gen. et sp. indet. Measurements of metatarsals and phalanges.

Left mandibular fragment : Length, $pm_4 - m_2$ = 13.9				
		Isolated cheekteeth		
Site	Specimen	Tooth	Length	Width
HWK EII	067/1975	Rt. m^2	2.9	2.8
BKII	067/1567	Rt. pm^4	4.1	3.1
	067/517	Rt. pm^4	4.0	3.1
	067/517	Rt. m^3	3.1	2.4
	067/517	Rt. pm_4	4.1	3.1
	067/1567	Lt. m_2	3.7	3.1
	067/1567	Lt. m_3	3.5	c 3.0
MNKII	067/1343	Lt. pm^4	3.3	2.6
	067/1345	Lt. m^1	3.3	2.8
	067/1343	Lt. m^2	3.5	2.9
	067/1343	Rt. m^2	3.7	3.1
	067/1343	Lt. m^3	2.9	2.5
	067/1346	Rt. m^3	3.7	3.1
	No number	m	3.3	2.7
	No number	m	3.8	3.5

Table 6.XII : Pedetes c.f. surdaster. Measurements of material from Olduvai Gorge : the left mandibular fragment is housed in the BM(NH) and the isolated cheekteeth are housed in TILLMIAP.

Calcaneum (068/6547)			
Overall length	41.2	Length of tuber calcis	18.4
Maximum transverse width	9.1	Width of tuber calcis	7.9
Maximum dorso-ventral depth	12.6	Depth of tuber calcis	9.7
Distal dorso-ventral depth	9.9		
Navicular (068/6550)			
Maximum dorso-ventral depth	13.3	Dorsal length	6.2
Length of plantar process	17.6	Transverse width	7.6

Table 6.XIII : Pedetes c.f. surdaster. Post-cranial material from Olduvai Gorge, housed at TILLMIAP.

Specimen	Measurement	Value
Laet.'75 1310		
Lt. mand. frag.	Depth at pm_4	16.9
	Length of diastema	c 8.2
	Length of toothrow	c 18.2
	Width of pm_4	3.3
	Width of m_1	3.3
	Width of m_2	3.0
	Width of m_3	c 2.8
Laet.'76 3908		
Rt. navicular	Length	6.0
	Depth	c 13.9
	Width	c 7.0
	Length of plantar process	16.9

Table 6.XIV : Measurements of two specimens from Laetoli ascribed to Pedetes c.f. surdaster. Laet.'75 1310 is of uncertain provenance while Laet.'76 3908 is from the site of Hominid 18.

Tooth	Length	Width
Lt. pm^4	4.2	3.7
Lt. m^2	3.5	2.9
Lt. m^1 or Rt. m_1 ?	4.0	3.5
Rt. pm_4	3.9	3.4
Rt. m_3	3.5	2.7

Table 6.XV : Pedetes capensis. SAM-PQG 3292. Material from Hagenstad Bath at Floris Bad; probably assigned to Pedetes hagenstadi by H.B.S. Cooke.

Measurement	Value
Length of incisive foramina	c 7.5
Width of incisive foramina	c 2.7
Left diastema	18.7
Left toothrow	14.7
Width across m^1	16.0
Length of incisor	3.8
Width of incisor	3.1
Width of left m^1	3.5

Table 6.XVI : Pedetes gracilis. AM4194C. Measurements of the holotype cranium.

	Pedetes	Megapedetes	Parapedetes
Enclosure of external nares	+?	+?	o?
Presence of posterior maxillary notch	+	?	o
Presence of bony pterygoid fossae	o	?	+
Size of foramen ovale	+	?	o
Median foramen in basisphenoid	+	?	o
Presence of ridges on incisors	o	1	1'
Openings of foramen mentale	+	+	o?
Posterior extent of mandibular angle	+	+?	o
Development of scapular acromion	o?	o?	+?

Table 7.I : Distribution of the states of those characters considered to contain taxonomic information at the subfamily level but in which the morphocline polarity is uncertain or the character is not present in one of the genera.

Abbreviations:-

+ apomorphous state

? state unknown

o plesiomorphous state

1) different apomorphous states of a
)
1') single character

	Pedetes	Megapedetes	Parapedetes
Position of lower maxillary root of zygoma	+	+	o
Position of incisive foramina	+	+	o
Interorbital constriction	o	o	+
Depression of frontals in midline	+	+	o
Post-orbital process of squamosal	+	+	o
Origin of m. masseter lateralis	o	o	+
Posterior extent of the jugal	o	o	+
Ossification of external acoustic meatus	+	+	o
Median foramen in basioccipital	+	+	o
Pattern of cheekteeth	o	o	+
Ventral edge of mandibular angle	o	o	+
Ridge on humerus from lesser tuberosity	o	o	+
Development of ischial tuberosity	+	+	o
Height of trochanter major of femur	+	+	o
Structure of metatarsus	o	o	+
Reduction of digit 5 in pes	o	o	+
Ventral curvature of Ph.I in pes	+	+	o
Form of ungual phalanges in pes	+	+	o

Table 7.II : Distribution of states in those characters considered to provide the least ambiguous evidence for the existence of subfamilies within the Family Pedetidae. Abbreviations as for Table 7.I.

	Pedetes	Megapedetes	Parapedetes
Overlapping of nasals by premaxillae	o	+	o
Enclosure of external nares	2	1	o
Extent of median frontal depression	1	2	o
Development of groove for m. temporalis	+	o	+
Anterior edge of preorbital bar	o	+	o
Preorbital process of lachrymal	+	o	o
Contribution of jugal to glenoid fossa	o	+	o
Position of lower maxillary root of zygoma	2	1	o
Alignment of lower maxillary root of zygoma	o	+	–
Presence of palatal groove	+	o	+
Position of incisive foramina	2	1	o
Width of incisors	+	o	o
Acquisition of hypsodonty	2 & 1	o	1
Acquisition of rootless cheekteeth	+ & o	o	o
Development of lower masseteric tubercle	+	o	?
Development of masseteric crest	+	o	o
Ventral process on symphysis menti	o	+	o
Process on medial epicondyle of humerus	+	o	o?
Entepicondylar foramen in humerus	o	+	o
Medial process on olecranon process	o?	+?	o?
Number of sacral vertebrae	+	o	+
Reduction of fibula	+	o	+
Extent of sulcus tali in astragalus	+	o	?
Development of sustentaculum tali	+	o	o

Table 7.III : continued on next page.

	Pedetes	Megapedetes	Parapedetes
Length of plantar process of navicular	+	o	o
Articulation between cuboid and Mt.III	+	o	o
Extent of proximal facet of Mt.III	+ o?	+ o?	?
Development of first cuneiform in pes	+	o	o
Presence of hallux	+	o	o?

Table 7.III : Distribution of the states of the characters discussed in relation to the inter-relationships of the two genera in the Subfamily Pedetinae, with consideration of the information they also provide on relationships at the sub-family level.

Abbreviations:-

These are as for Table 7.I with the following additions :

– character not present in the genus

2) successive apomorphous states of a single
) character [i.e. stages of a single
1) transformation series]

In the case of some characters more than one state is found in a single genus: these characters are also of taxonomic importance at the species level.

Abbreviations for diagrams.

acet.	acetabulum
acr. ang.	acromial angle
AL.	alisphenoid
anapop.	anapophysis
att. clav.	attachment for clavicle
att. rib	attachment for rib
ast.	astragalus
au. sur.	auricular surface
bicip. gr.	bicipital groove
bicip. tuy.	bicipital tuberosity
b-m can.	buccinator/masticatory nerve canal
BO	basioccipital
bu.	bulla
C1	first cuneiform
C3	third cuneiform
ccd. pr.	coracoid process
Ce3	cervical 3
cen. em.	central eminence
cl.	claw
cn. cr.	cnemial crest
cor.	coronoid process
crib. pl.	cribriform plate
cub.	cuboid
dens	dens of axis
dist. fib.	distal fibula
dist. vent. pr.	distal ventral process
dor. pr.	dorsal process
d-p cr.	delto-pectoral crest
Dt.1	digit 1
Dt.5	digit 5
ext. ac. meat.	external acoustic meatus

F.	frontal
f.	facet
f. acr.	facet for acromial process of scapula
f. ast.	facet for astragalus
f. atl.	facet for atlas
f. axis	facet for condyles of axis
f. C1	facet for C1
f. C2	facet for C2
f. C3	facet for C3
f. cal.	facet for calcaneum
f. cap.	facet for rib capitulum
f. cent.	facet for centrale
f. cub.	facet for cuboid
f. cun.	facet for cuneiform
f. dens.	facet for dens of axis
f. fem.	facet for femur
f. fib.	facet for fibula
f. mag.	facet for magnum
f. Mc.I.	facet for metacarpal I
f. Mc.II.	facet for metacarpal II
f. Mc.III.	facet for metacarpal III
f. Mc.IV.	facet for metacarpal IV
f. Mc.V.	facet for metacarpal V
f. med. ses.	facet for medial sesamoid
f. Mt.	facet for metatarsal
f. Mt.I.	facet for metatarsal I
f. Mt.II.	facet for metatarsal II
f. Mt.III.	facet for metatarsal III
f. Mt.IV.	facet for metatarsal IV
f. Mt.V.	facet for metatarsal V
f. nav.	facet for navicular
f. occ.	facet for occipital condyle
f. Ph.I.	facet for phalanx I
f. Ph.II.	facet for phalanx II
f. rad.	facet for radius
f. rad. oss.	facet for radial ossicle
f. rib.	facet for rib
f. scaph.	facet for scapho-lunar

f. ses.	facet for sesamoid
f. ten.	facet for tendon
f. trapd.	facet for trapezoid
f. trapm.	facet for trapezium
f. tubm.	facet for rib tuberculum
f. uln.	facet for ulna
f. unc.	facet for unciform
fen.	fenestra
fib.	fibula
floc. fos.	floccular fossa
for.	foramen
for. ent.	entepicondylar foramen
for. eth.	ethmoid foramen
for. Eus.	Eustachian foramen
for. hpg.	hypoglossal foramen
for. in BO.	foramen in basioccipital
for. in BS.	foramen in basisphenoid
for. incv.	incisive foramen
for. int.	intervertebral foramen
for. jug.	jugular foramen
for. men.	foramen mentale
for. opt.	optical foramen
for. ov.	foramen ovale
for. post. pal.	posterior palatal foramen
for. sub.	suboccipital foramen of atlas
for. temp.	temporal foramen
fos.	fossa
fos. cl.	fossa for clavicle
fos. cr. n.	fossa for cranial nerve foramina
fos. Mt.IV.	fossa for metatarsal IV
fos. Mt.V.	fossa for metatarsal V
fos. rib 1	fossa for rib 1
gr.	groove
gr. cal.	groove for calcaneum
gr. m. temp.	groove for m. temporalis
gt. tuy.	greater tuberosity

hum.	humerus
il. cr.	iliac crest
inc.	incisor
incv. al.	incisive alveolus
inf. den. for.	inferior dental foramen
inf. pr. J.	inferior process of jugal
ing. tub.	infraglenoid tubercle
ins. mmm.	insertion of m. masseter medialis
ins. mpi.	insertion of m. pterygoideus internus
ins. mtm.	insertion of m. teres major
int. pt. fl.	internal pterygoid flange
IP.	interparietal
isc. sp.	ischial spine
J.	jugal
kl.	keel
L.	lachrymal
lat. ant. pr.	lateral anterior process
lat. pr.	lateral process
lat. rd.	lateral ridge
lat. tub.	lateral tubercle
less. tuy.	lesser tuberosity
lin. as.	linea aspera
lw. mass. tub.	lower masseteric tubercle
lw. max. rt.	lower maxillary root of zygoma
mag.	magnum
man.	manubrium sterni
mass. cr.	masseteric crest
mast. fl.	mastoid flange
mdn. dep.	median depression
med. post. pr.	medial posterior process
med. rd.	medial ridge
med. tub.	medial tubercle

metap.	metapophysis
m. l. for.	middle lacerate foramen
m. mass. lat.	m. masseter lateralis
m. mass. med.	m. masseter medialis
m. mass. sup.	m. masseter superficialis
m. temp.	m. temporalis
Mt.I.	metatarsal I
Mt.II.	metatarsal II
Mt.IV.	metatarsal IV
Mt.V.	metatarsal V
MX.	maxilla
N.	nasal
nav.	navicular
neur. sp.	neural spine
non-art. area	non-articular area
obl. ln.	oblique line
ol. fos.	olecranon fossa
ol. pr.	olecranon process
o. mms.	origin of m. masseter superficialis
o. mrf.	origin of m. rectus femoris
o. mtm.	origin of m. teres major
o. mvi.	origin of m. vastus intermedius
o. pect.	origin of m. pectoralis (part)
orb.	orbit
P.	parietal
pa. pr.	palmar process
pal. gr.	palatal groove
pat.	patella
patr. gr.	patellar groove
pect.	pectineal tubercle
Ph.III	phalanx III
PL.	palatine
pl. rd.	plantar ridge
pl. pr.	plantar process
PM.	premaxilla

p.o.	post-orbital process
post. lat. tub.	posterior lateral tubercle
pr.	process
prezyg.	prezygapophysis
prox. dor. cor.	proximo-dorsal corner
prox. med. pr.	proximo-medial process
pt. fos.	pterygoid fossa
pu. sym.	pubic symphysis
pu. tub.	pubic tubercle
rad.	radius
rad. no.	radial notch
rad. nv. sul.	radial nerve sulcus
rd.	ridge
rib.	rib
scaph.	scapho-lunar
ses.	sesamoid
so. rd.	supraorbital ridge
sphen. fis.	sphenoidal fissure
SQ.	squamosal
st.	styloid process
stern. end	sternal end
su. cr.	supinator crest
sul. cal.	sulcus calcanei
sul. tal.	sulcus tali
sus.	sustentaculum tali
tr.	trochlea
trans. can.	transverse canal
trans. pr.	transverse process
troch. maj.	trochanter major
troch. min.	trochanter minor
tub.	tubercle
tub. Mt.III.	tubercle for metatarsal III
turb.	turbinal bone

ul.	ulna
unc.	unciform
ung. Ph.	ungual phalanx
V.	vomer
vent. pr.	ventral process
vent. tub.	ventral tubercle
vert. can.	vertebrarterial canal
zyg.	zygapophysis

Key to shading

Horizontal shading	matrix
Diagonal shading (Chapter 2 only)	cartilage
Diagonal cross-hatching	broken bone
Vertical cross-hatching (except Chapter 6)	large foramina
Vertical cross-hatching (Chapter 6)	see individual diagrams

Figure 2.1 : Pedetes surdaster. Cranium.

A) Dorsal aspect : OUM13567

B) Profile : OUM13571

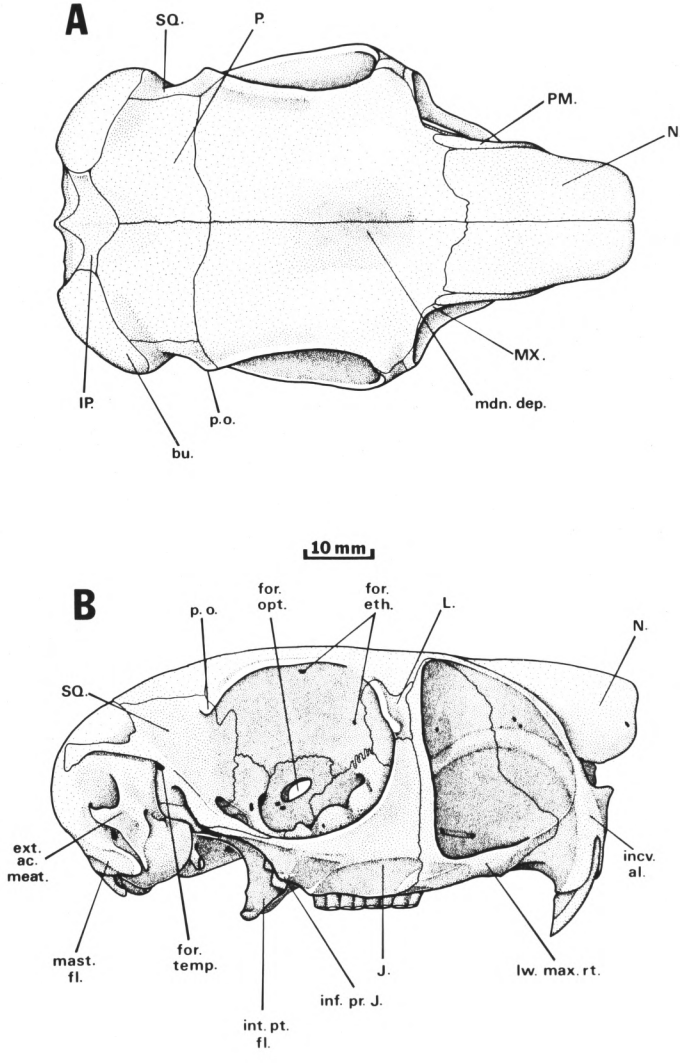

A
SQ.
P.
PM.
N.
MX.
mdn. dep.
IP.
p.o.
bu.
10 mm
B
p.o.
for. opt.
for. eth.
L.
N.
SQ.
ext. ac. meat.
incv. al.
mast. fl.
for. temp.
J.
lw. max. rt.
inf. pr. J.
int. pt. fl.

Figure 2.2 : Pedetes surdaster. Cranium.

A) Ventral aspect : OUM13567

B) Internal aspect : OUM13561

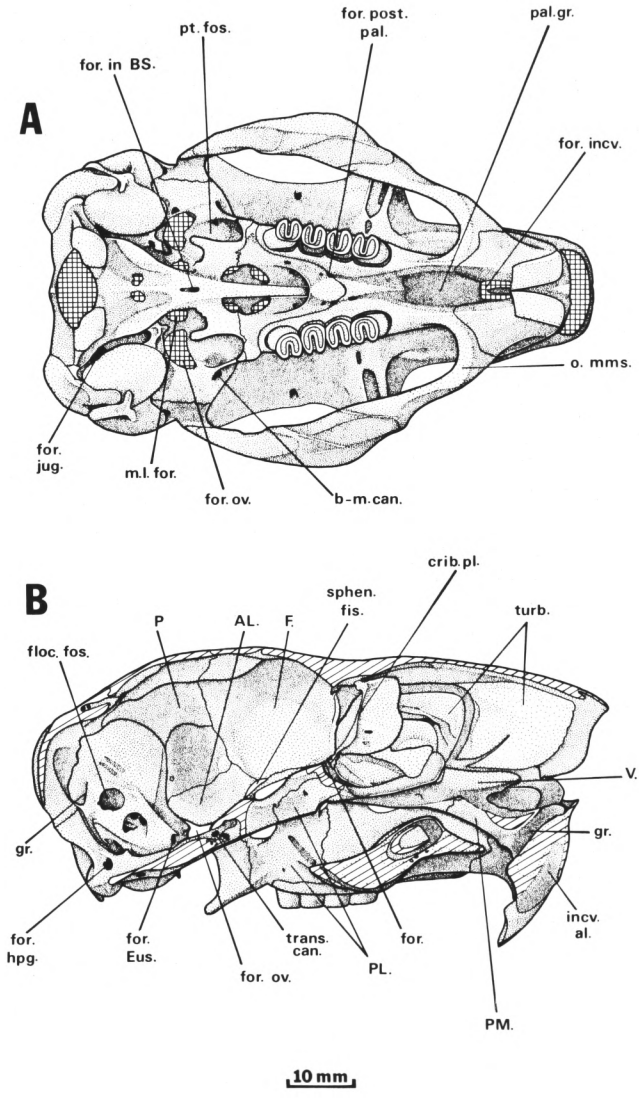

A
for. in BS.
pt. fos.
for. post. pal.
pal.gr.
for. incv.
o. mms.
for. jug.
m.l. for.
for. ov.
b-m.can.
B
crib.pl.
sphen. fis.
P
AL.
F.
turb.
floc. fos.
V.
gr.
gr.
incv. al.
for. hpg.
for. Eus.
trans. can.
for. ov.
for.
PL.
PM.
10 mm

Figure 2.3 : Pedetes surdaster. Mandible.

A) Dorsal aspect : OUM13568

B) Lateral aspect, right ramus : OUM13561

C) Medial aspect, right ramus : OUM13561

D) Ventral aspect : OUM13568

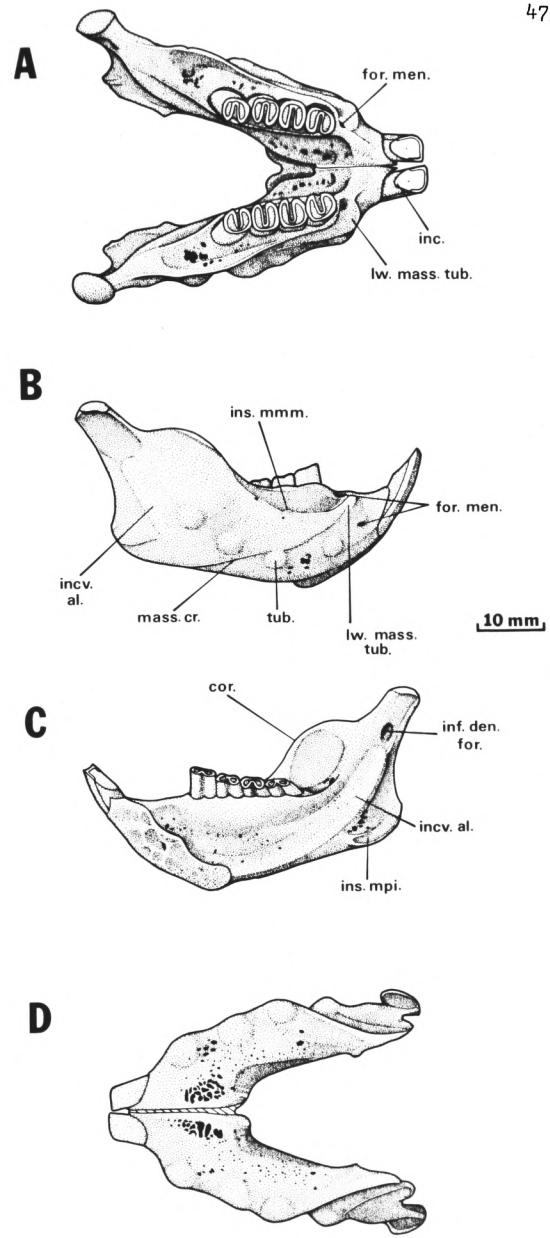

A
for. men.
inc.
lw. mass. tub.
B
ins. mmm.
for. men.
incv. al.
mass. cr.
tub.
lw. mass. tub.
10 mm
C
cor.
inf. den. for.
incv. al.
ins. mpi.
D

Figure 2.4 : Pedetes surdaster. Cheekteeth.

A) Right maxillary toothrow, juvenile : BM(NH)1.8.9.107. (Buccal side to the left)

B) Left maxillary toothrow, juvenile : BM(NH)1.8.9.107. (Buccal side to the right)

C) Right mandibular toothrow, juvenile : BM(NH)1.8.9.107. (Lingual side to the left)

D) Left mandibular toothrow, juvenile : BM(NH)1.8.9.107. (Lingual side to the right)

E) Left maxillary toothrow, subadult : OUM13552 (Buccal side to the right)

F) Left maxillary toothrow, adult : OUM13554 (Buccal side to the right)

G) Left mandibular toothrow, adult : OUM13554 (Lingual side to the right)

H) Left mandibular toothrow, subadult : OUM13552 (Lingual side to the right)

In all the diagrams the anterior end of the toothrow is toward the top of the page.

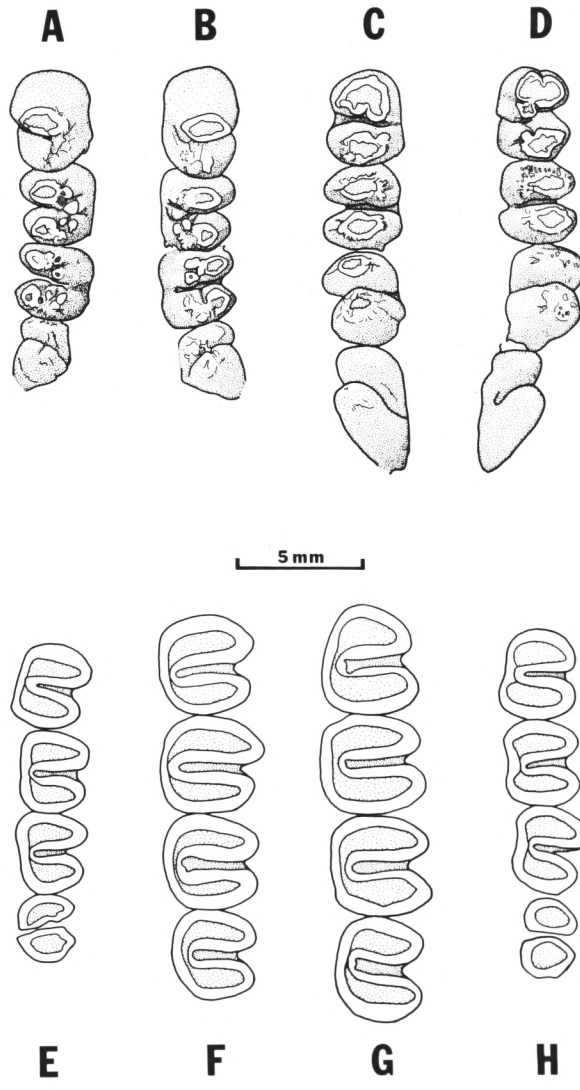

A
B
C
D
5 mm
E
F
G
H

Figure 2.5 : Pedetes surdaster. Cervical vertebrae.

A) Atlas, anterior view : OUM13553

B) Atlas, posterior view : OUM13553

C) Atlas, dorsal view : OUM13553

D) Atlas, left lateral view : OUM13553

E) Axis + Ce3, left lateral view : OUM13557

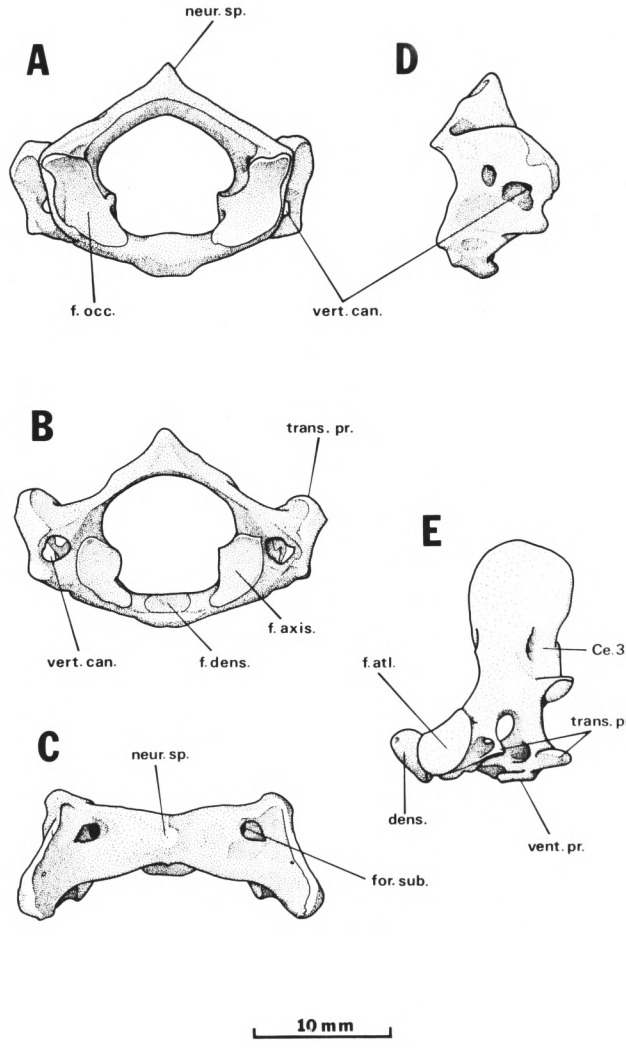

A
neur. sp.
f. occ.
vert. can.
D
B
trans. pr.
f. axis.
vert. can.
f. dens.
E
f. atl.
Ce. 3.
trans. pr.
dens.
vent. pr.
C
neur. sp.
for. sub.
10 mm

Figure 2.6 : Pedetes surdaster. Cervical and thoracic vertebrae.

A) Ce6, anterior view : OUM13557

B) Ce6, dorsal view : OUM13557

C) Th2, anterior view : OUM13557

D) Th2, dorsal view : OUM13557

E) Th2, left lateral view : OUM13557

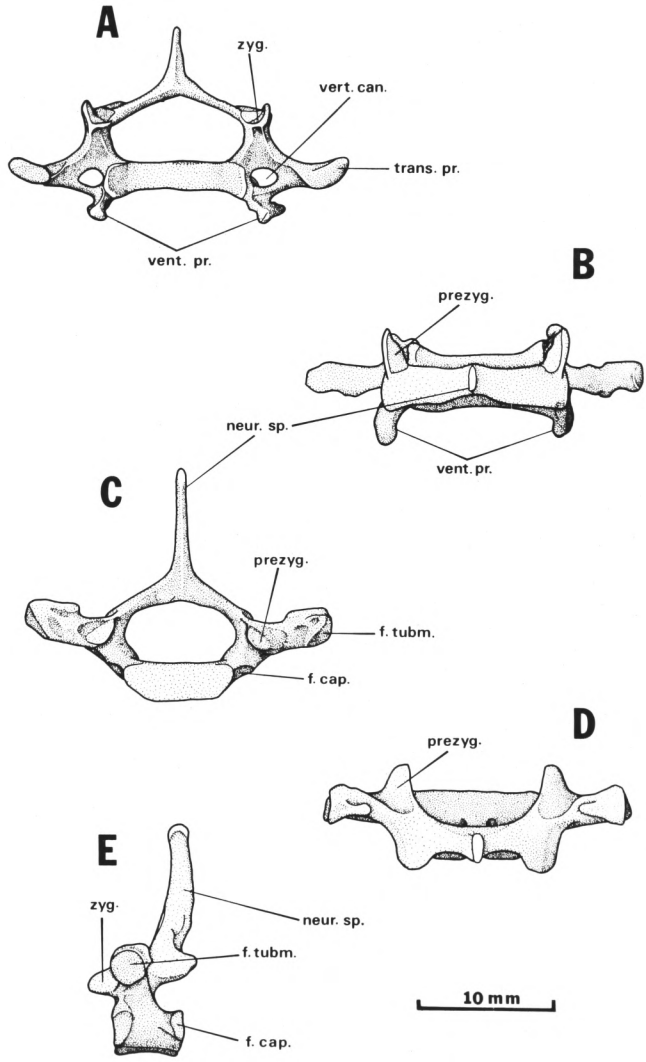

A
zyg.
vert. can.
trans. pr.
vent. pr.
B
prezyg.
neur. sp.
vent. pr.
C
prezyg.
f. tubm.
f. cap.
D
prezyg.
E
zyg.
neur. sp.
f. tubm.
f. cap.
10 mm

Figure 2.7 : Pedetes surdaster. Thoracic vertebrae.

A) Th8, anterior view : OUM13551

B) Th8, left lateral view : OUM13551

C) Th8, dorsal view : OUM13551

D) Th11, anterior view : OUM13557

E) Th11, left lateral view : OUM13557

F) Th11, dorsal view : OUM13557

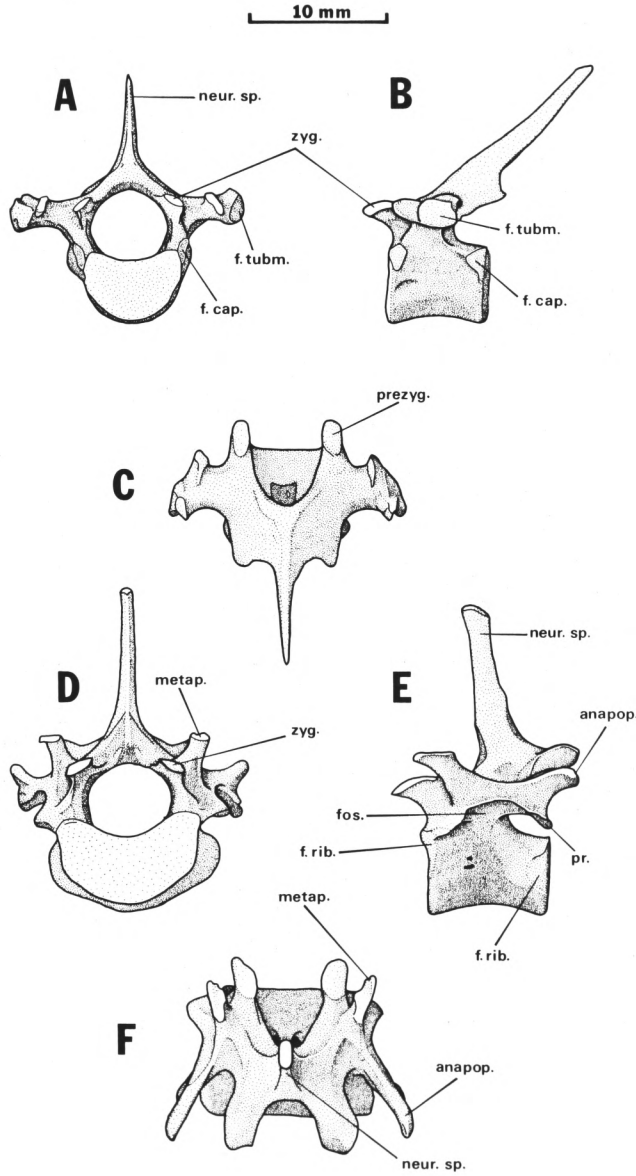

10 mm
A
neur. sp.
zyg.
f. tubm.
f. cap.
B
f. tubm.
f. cap.
prezyg.
C
D
metap.
zyg.
E
neur. sp.
anapop.
fos.
f. rib.
pr.
f. rib.
metap.
F
anapop.
neur. sp.

Figure 2.8 : Pedetes surdaster. Lumbar vertebra 4.

A) Anterior view : OUM13557

B) Dorsal view : OUM13557

C) Left lateral view : OUM13557

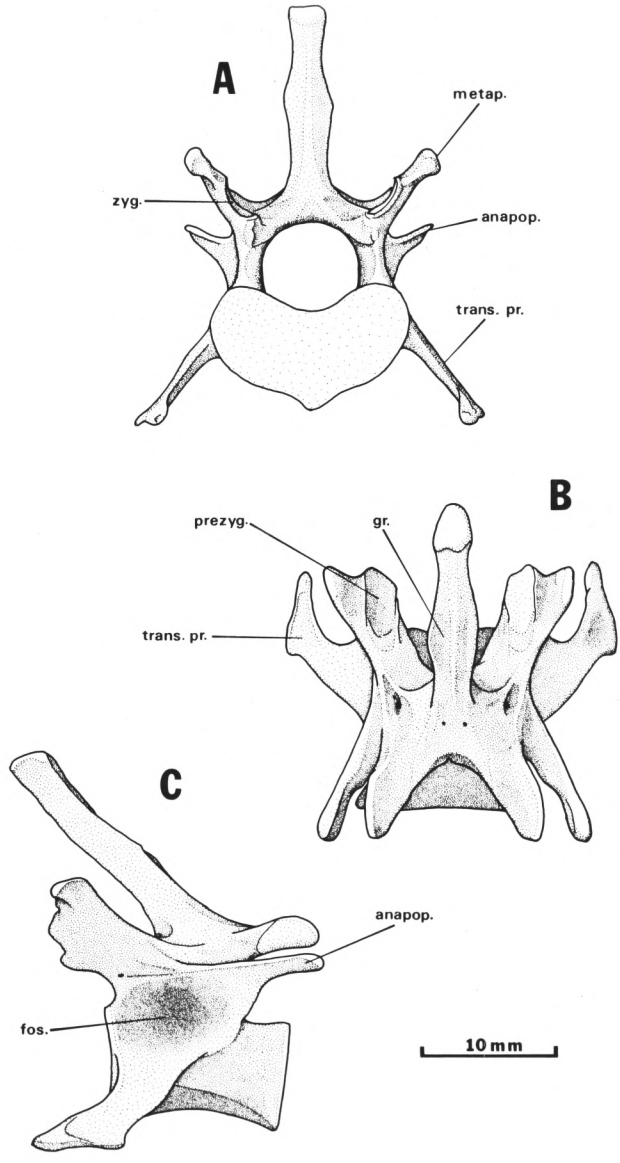
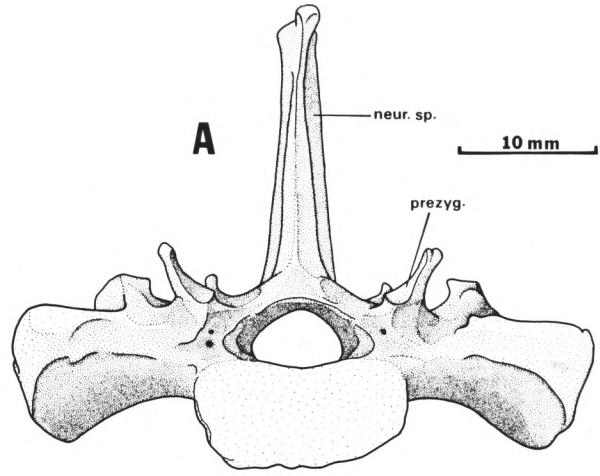

A
metap.
zyg.
anapop.
trans. pr.
B
prezyg.
gr.
trans. pr.
C
anapop.
fos.
10 mm

Figure 2.9 : Pedetes surdaster. Sacrum.

A) Anterior view : OUM13557

B) Dorsal view : OUM13557


A
neur. sp.
10 mm
prezyg.

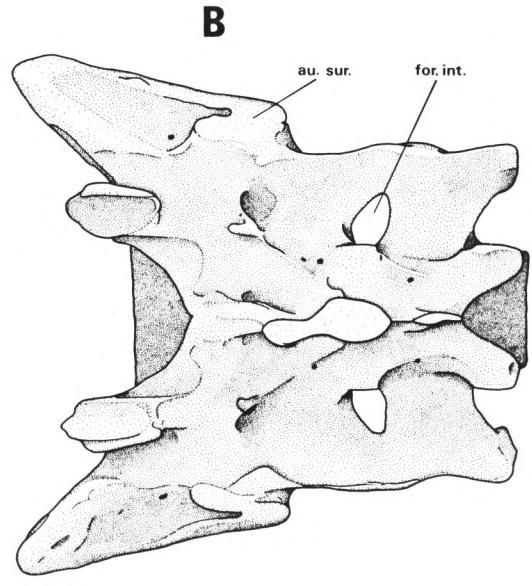

B
au. sur.
for. int.

Figure 2.10 : Pedetes surdaster. Sacrum and caudal vertebrae.

A) Sacrum, left lateral view : OUM13557

B) Ca4, posterior view : OUM13557

C) Ca4, right lateral view : OUM13557

D) Ca4, dorsal view : OUM13557

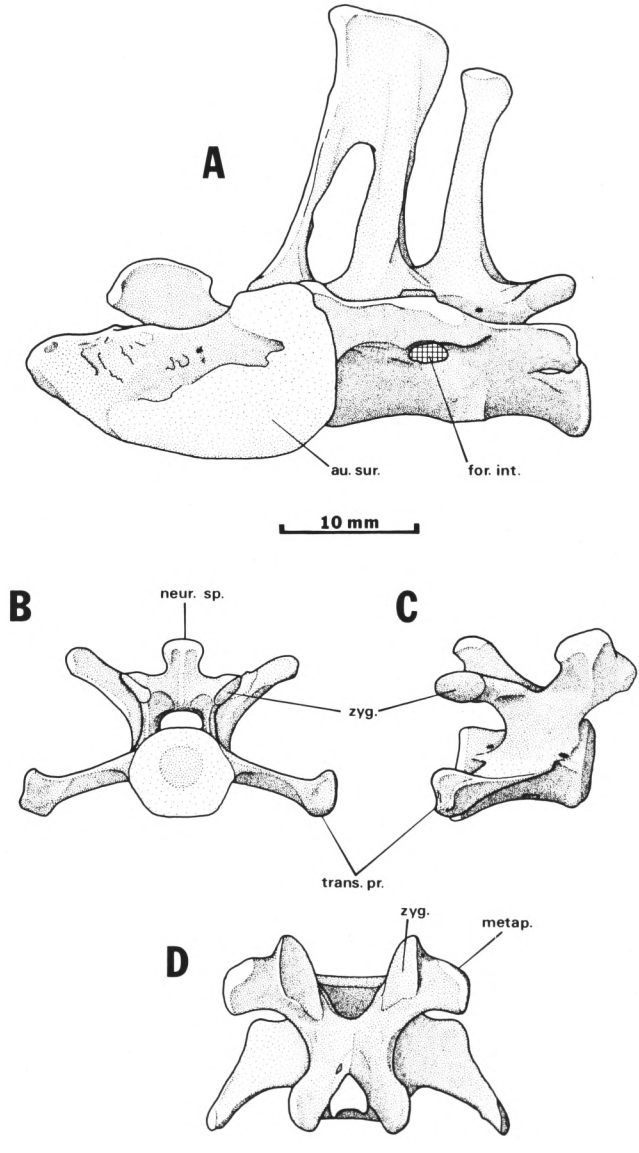

A
au. sur.
for. int.
10 mm
B
neur. sp.
zyg.
trans. pr.
C
D
zyg.
metap.

Figure 2.11 : Pedetes surdaster. Caudal vertebrae and sternum.

A) Ca10, dorsal view : OUM13557

B) Ca10, right lateral view : OUM13557

C) Ca10, ventral view : OUM13557

(The anterior end of the vertebra is to the right in each diagram.)

D) Manubrium sterni, dorsal view : OUM13549

E) Manubrium sterni, ventral view : OUM13549

F) Sternebra, dorsal view : OUM13549

G) Sternebra, ventral view : OUM13549

H) Xiphoid process, ventral view : OUM13549

(In diagram H the anterior end is to the right)

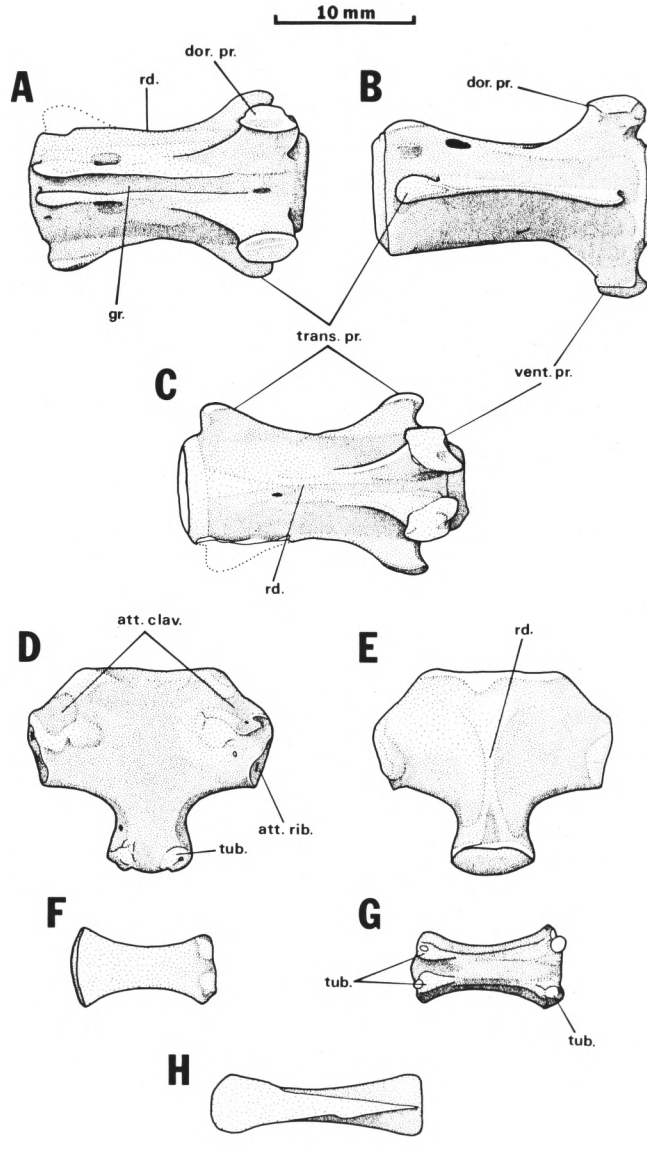

10 mm
A
dor. pr.
rd.
gr.
B
dor. pr.
trans. pr.
vent. pr.
C
rd.
D
att. clav.
att. rib.
tub.
E
rd.
F
G
tub.
tub.
H

Figure 2.12 : Pedetes surdaster. Scapula and clavicle.

A) Left scapula, lateral view : OUM13554

B) Left clavicle, anterior view : OUM13554

C) Left clavicle, posterior view : OUM13554

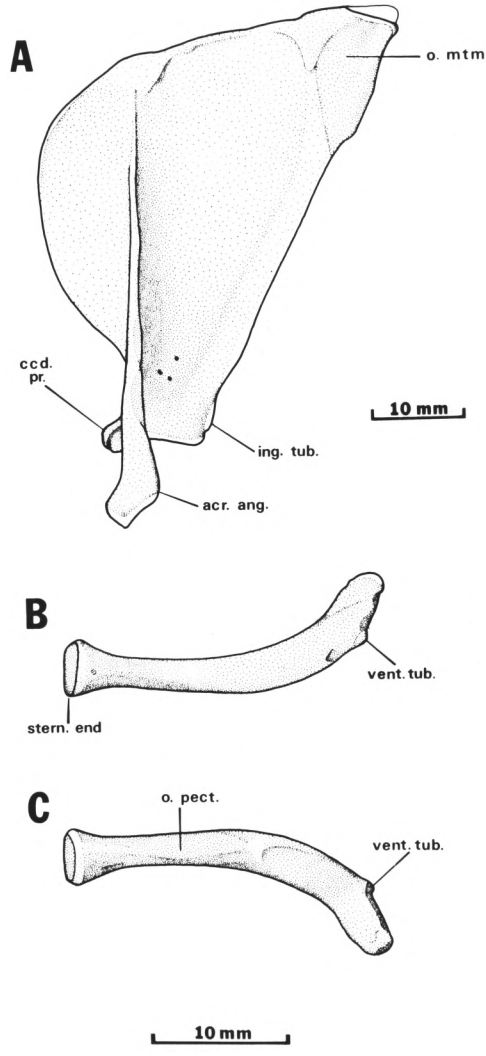

A
o. mtm.
ccd.
pr.
10 mm
ing. tub.
acr. ang.
B
vent. tub.
stern. end
C
o. pect.
vent. tub.
10 mm

Figure 2.13 : Pedetes surdaster. Humerus and ulna.

A) Left humerus, anterior view : OUM13555

B) Left humerus, posterior view : OUM13555

C) Left humerus, medial view : OUM13555

D) Left ulna, medial view : OUM13557

E) Left ulna, lateral view : OUM13557

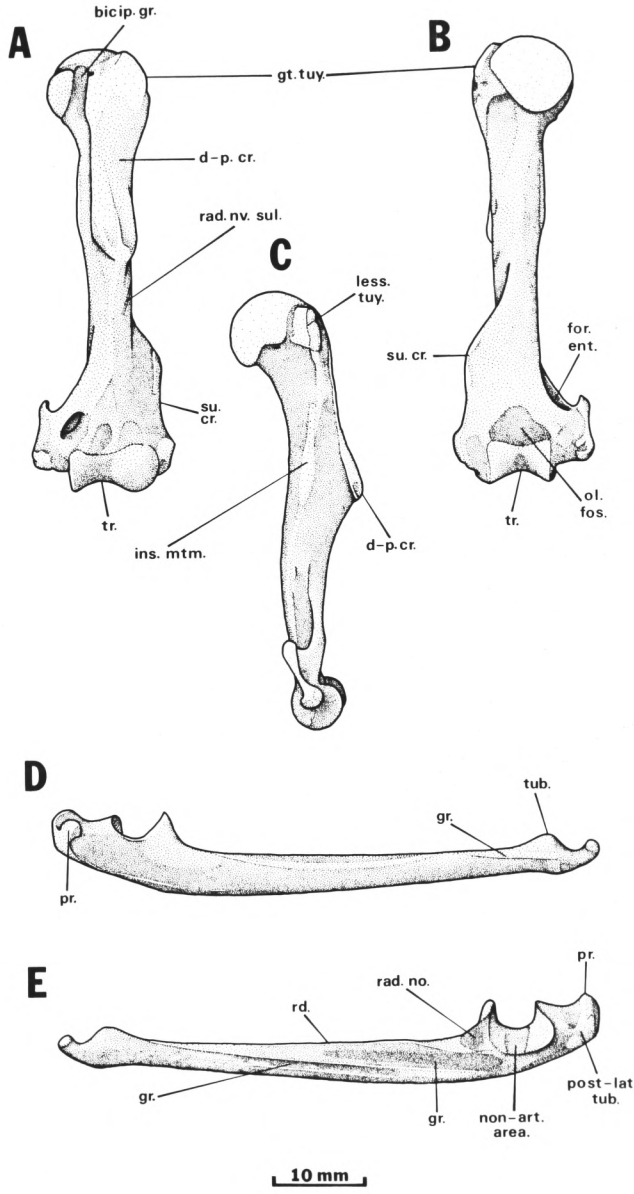

A
bicip. gr.
gt. tuy.
d-p. cr.
rad. nv. sul.
su. cr.
tr.
ins. mtm.
B
for. ent.
su. cr.
ol. fos.
tr.
C
less. tuy.
d-p. cr.
D
tub.
gr.
pr.
E
pr.
rad. no.
rd.
gr.
gr.
non-art. area.
post-lat. tub.
10 mm

Figure 2.14 : Pedetes surdaster. Radius and patella.

A) Left radius, posterior view : OUM13555

B) Left radius, anterior view : OUM13555

C) Left radius, medial view : OUM13555

D) Left patella, anterior view : OUM13549

E) Left patella, posterior view : OUM13549

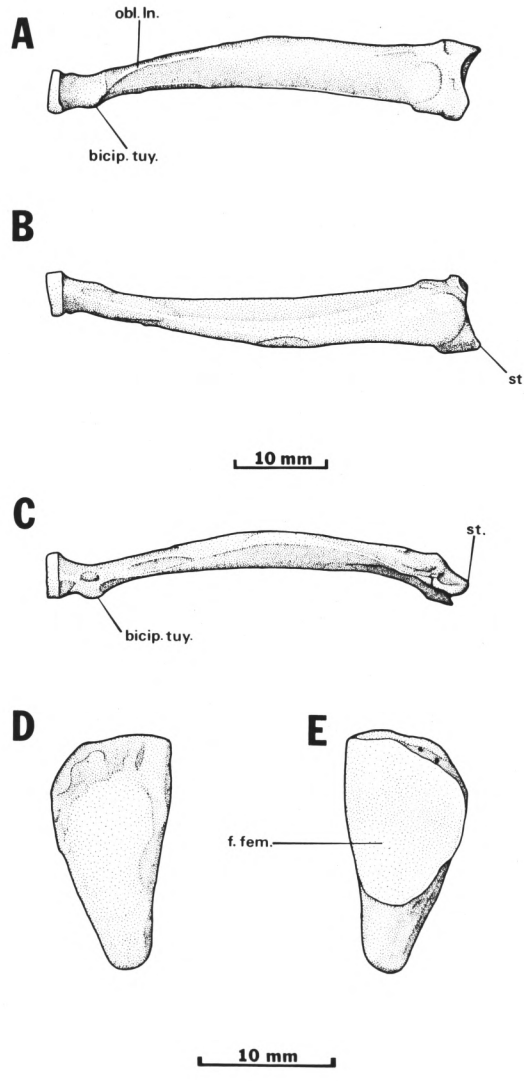

A
obl. ln.
bicip. tuy.
B
st.
10 mm
C
st.
bicip. tuy.
D
E
f. fem.
10 mm

Figure 2.15 : Pedetes surdaster. Manus and carpal bones.

A) Manus, dorsal view : OUM13554

B) Right scapho-lunar, disto-dorsal view : OUM13557

C) Right scapho-lunar, ventral view : OUM13557

D) Left trapezoid, medial view (dorsal surface to the left) : OUM13557

E) Left trapezoid, disto-lateral view (dorsal surface to the left; distal surface downwards) : OUM13557

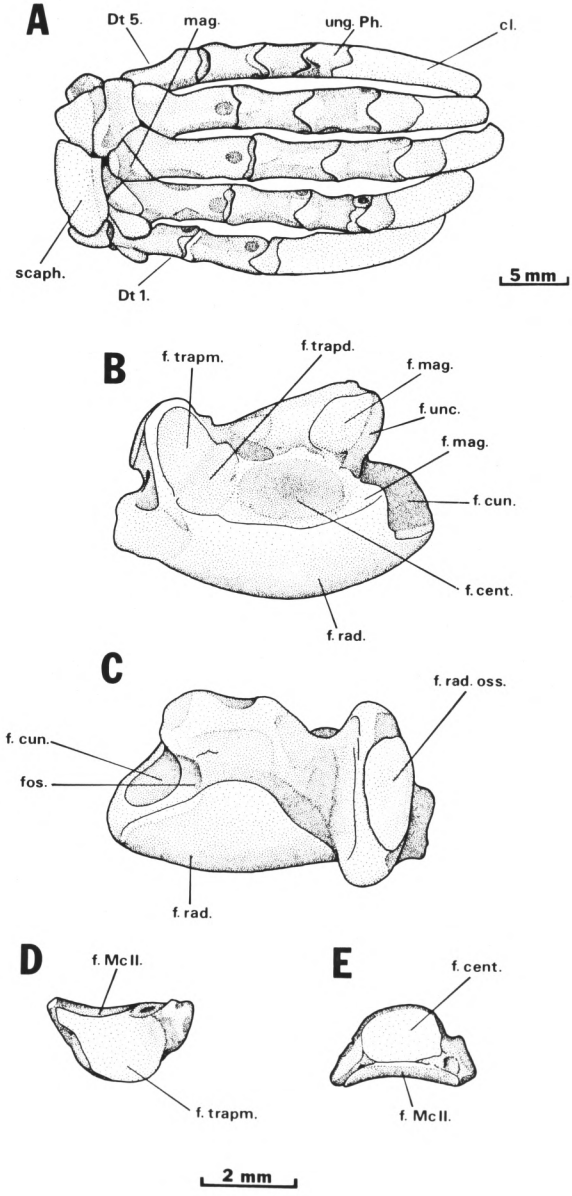

A
Dt 5.
mag.
ung. Ph.
cl.
scaph.
Dt 1.
5 mm
B
f. trapm.
f. trapd.
f. mag.
f. unc.
f. mag.
f. cun.
f. cent.
f. rad.
C
f. rad. oss.
f. cun.
fos.
f. rad.
D
f. McII.
f. trapm.
E
f. cent.
f. McII.
2 mm

Figure 2.16 : Pedetes surdaster. Carpal bones.

A) Left cuneiform, proximal view : OUM13557

B) Left cuneiform, medial view : OUM13557

C) Left cuneiform, distal view : OUM13557

D) Left cuneiform, lateral view : OUM13557

E) Left pisiform, lateral view : OUM13557

F) Left pisiform, medial view : OUM13557

G) Left trapezium, proximal view (dorsal surface to the left) : OUM13557

H) Left trapezium, distal view (dorsal surface to the left) : OUM13557

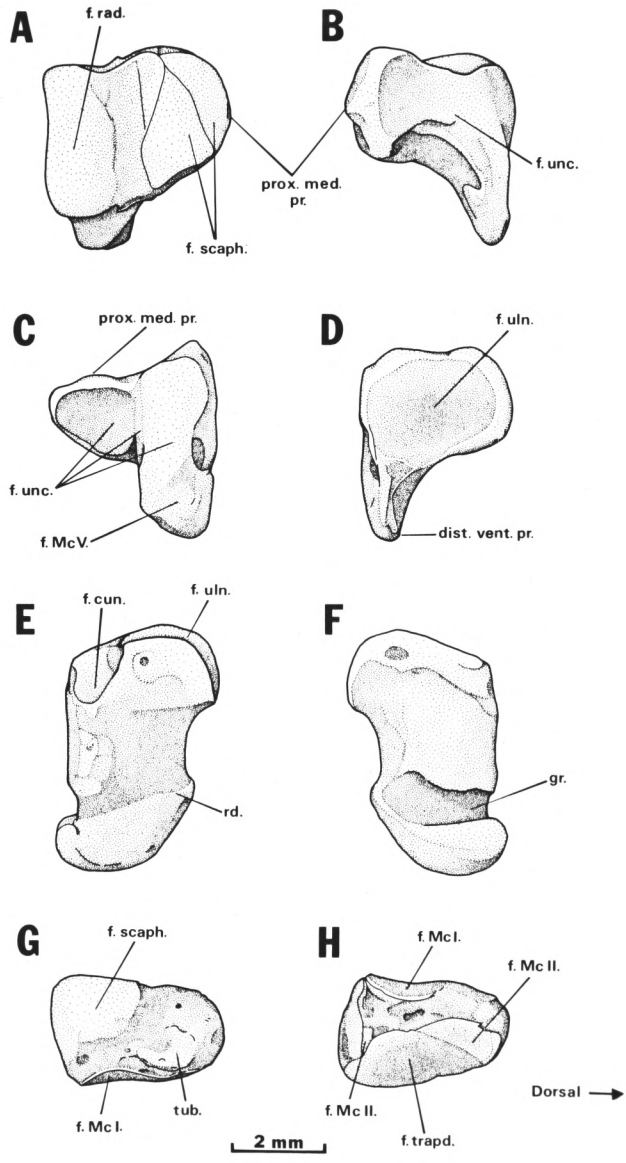

A
f. rad.
f. scaph.
B
prox. med. pr.
f. unc.
C
prox. med. pr.
f. unc.
f. McV.
D
f. uln.
dist. vent. pr.
E
f. cun.
f. uln.
rd.
F
gr.
G
f. scaph.
tub.
f. Mc I.
H
f. Mc I.
f. Mc II.
f. Mc II.
f. trapd.
Dorsal
2 mm

Figure 2.17 : Pedetes surdaster. Carpal bones and metacarpal I.

A) Left unciform, ventral view : OUM13557

B) Left unciform, medial view : OUM13557

C) Left magnum, medial view (distal surface to the right) : OUM13557

D) Left magnum, lateral view (distal surface to the left) : OUM13557

E) Left magnum, proximal view : OUM13557

F) Left Mc.I, medial view : OUM13557

G) Left Mc.I, lateral view : OUM13557

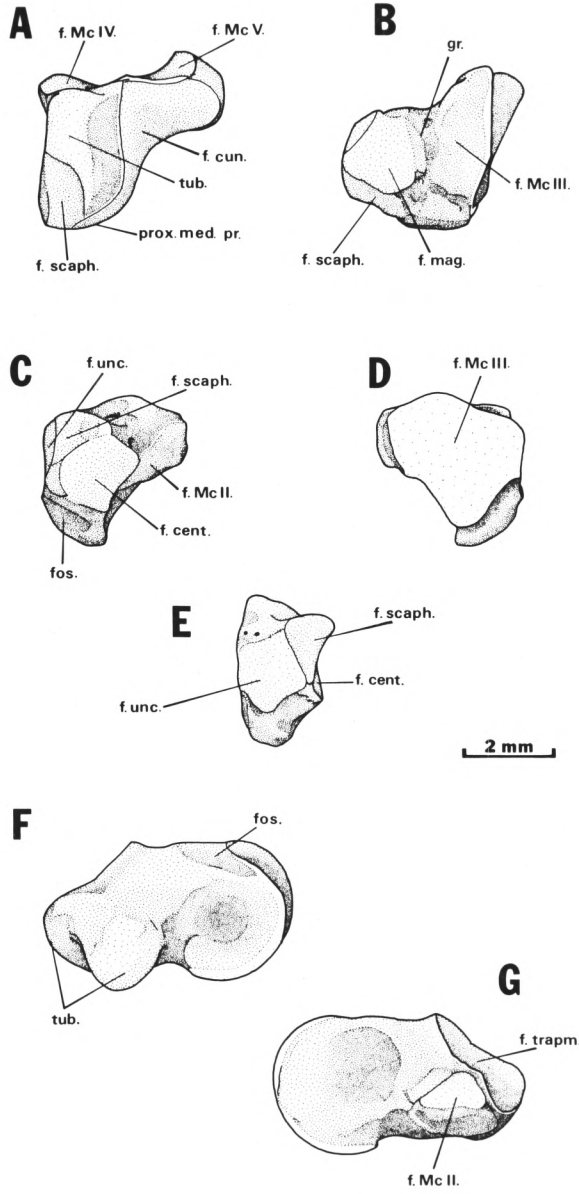

A
f. Mc IV.
f. Mc V.
f. cun.
tub.
prox. med. pr.
f. scaph.
B
gr.
f. Mc III.
f. scaph.
f. mag.
C
f. unc.
f. scaph.
f. Mc II.
f. cent.
fos.
D
f. Mc III.
E
f. scaph.
f. cent.
f. unc.
2 mm
F
fos.
tub.
G
f. trapm.
f. Mc II.

Figure 2.18 : Pedetes surdaster. Metacarpals and phalanx III.

A) Left Mc.II, medial view : OUM13557

B) Left Mc.II, lateral view : OUM13557

C) Left Mc.III, medial view : OUM13557

D) Left Mc.III, lateral view : OUM13557

E) Left digit 2, Ph.III, medial view : OUM13557

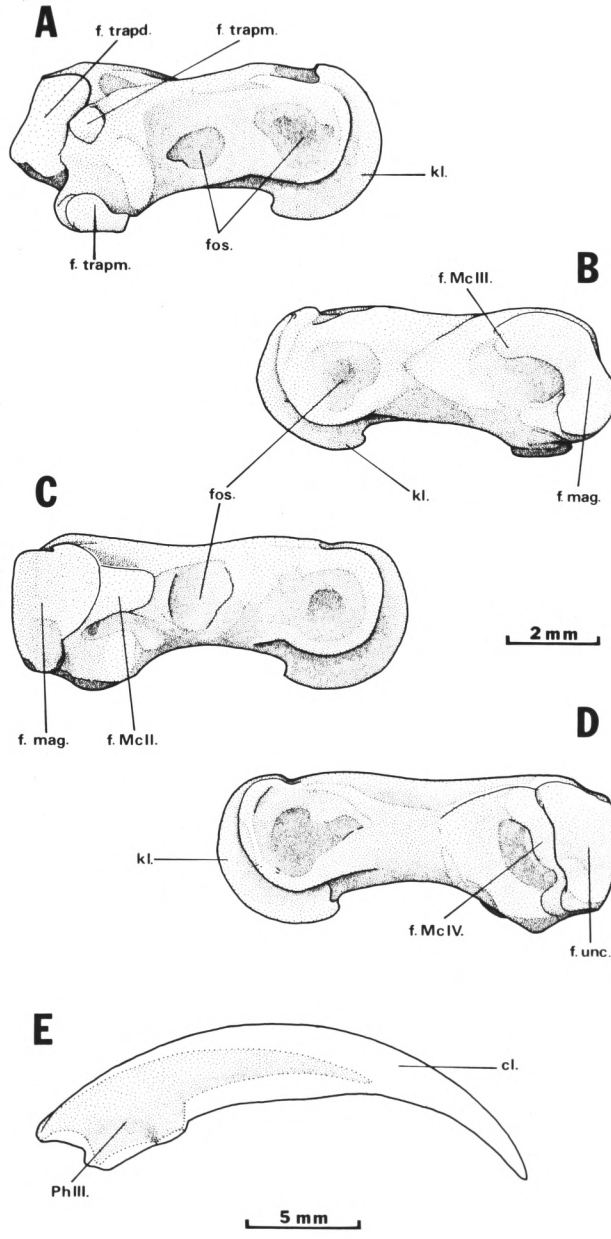

A
f. trapd.
f. trapm.
kl.
fos.
f. trapm.
B
f. McIII.
fos.
kl.
f. mag.
C
2 mm
f. mag.
f. McII.
D
kl.
f. McIV.
f. unc.
E
cl.
PhIII.
5 mm

Figure 2.19 : Pedetes surdaster. Metacarpals and phalanx I.

A) Left Mc.IV, medial view : OUM13557

B) Left Mc.IV, lateral view : OUM13557

C) Left Mc.V, medial view : OUM13557

D) Left Mc.V, lateral view : OUM13557

E) Left digit 1, Ph.I, lateral view : OUM13557

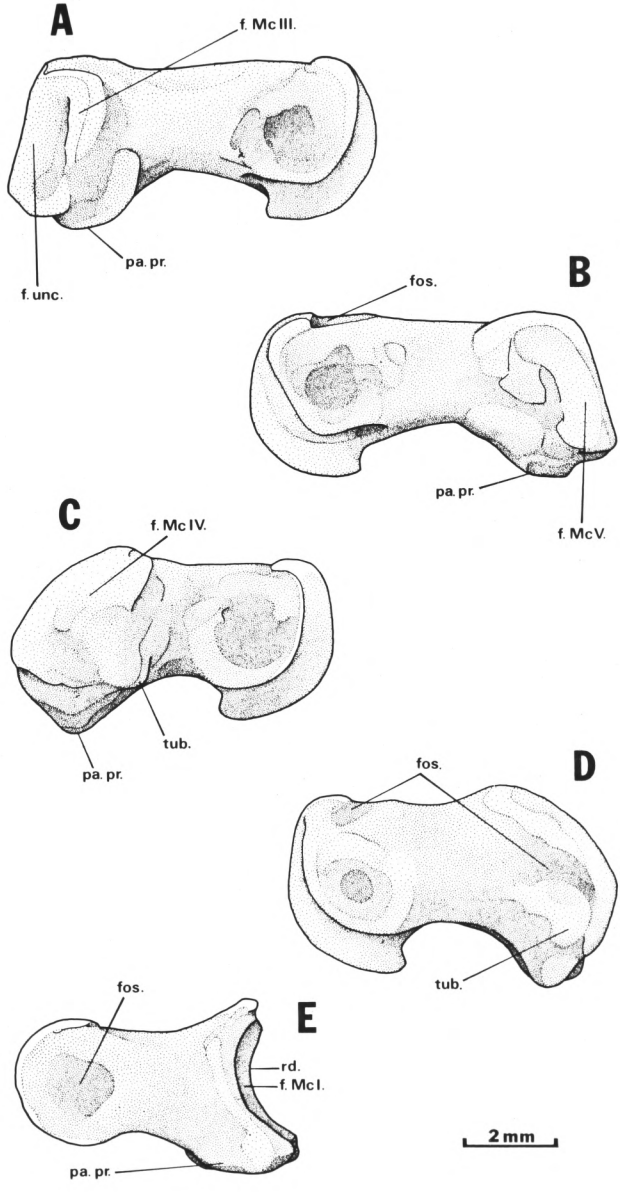

A
f. McIII.
pa. pr.
f. unc.
B
fos.
pa. pr.
f. McV.
C
f. McIV.
tub.
pa. pr.
D
fos.
tub.
E
fos.
rd.
f. McI.
pa. pr.
2 mm

Figure 2.20 : Pedetes surdaster. Phalanges and radial ossicle.

A) Left digit 3, Ph.I, ventral view : OUM13557

B) Left digit 3, Ph.I, lateral view : OUM13557

C) Left digit 4, Ph.II, lateral view : OUM13557

D) Right radial ossicle, lateral view : OUM13557

E) Right radial ossicle, medial view : OUM13557

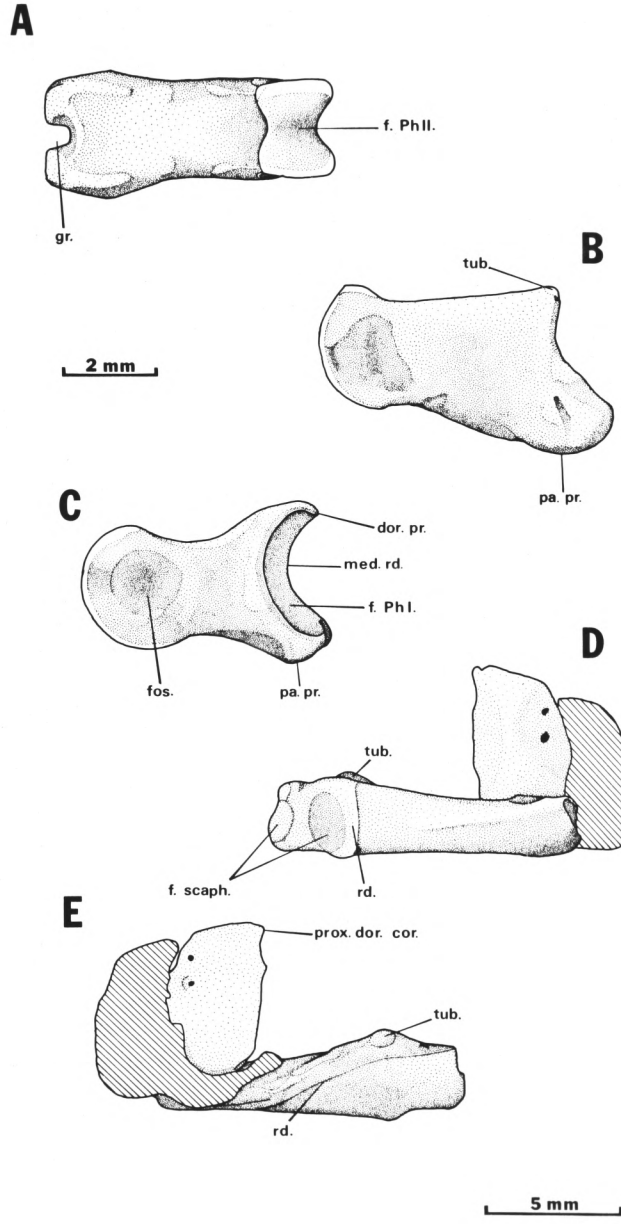

A
f. PhII.
gr.
B
tub.
2 mm
pa. pr.
C
dor. pr.
med. rd.
f. PhI.
fos.
pa. pr.
D
tub.
f. scaph.
rd.
E
prox. dor. cor.
tub.
rd.
5 mm

Figure 2.21 : Pedetes surdaster. Innominate bone and femur.

A) Left innominate bone, lateral view : OUM13554

B) Left femur, posterior view : OUM13554

C) Left femur, anterior view : OUM13554

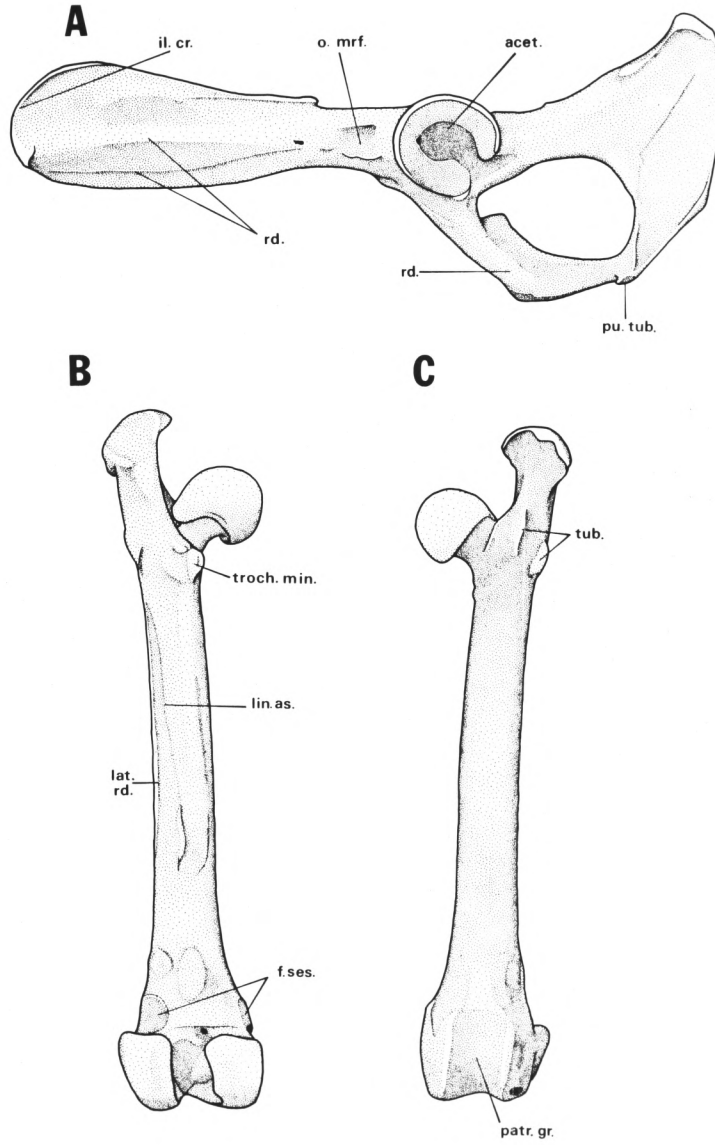

A
il. cr.
o. mrf.
acet.
rd.
rd.
pu. tub.
B
troch. min.
lin. as.
lat. rd.
f. ses.
C
tub.
patr. gr.
10 mm

Figure 2.22 : Pedetes surdaster. Innominate bone, tibia and fibula.

A) Left innominate bone, medial view : OUM13554

B) Left tibia, medial view : OUM13554

C) Left tibia with fibula, lateral view : OUM13554

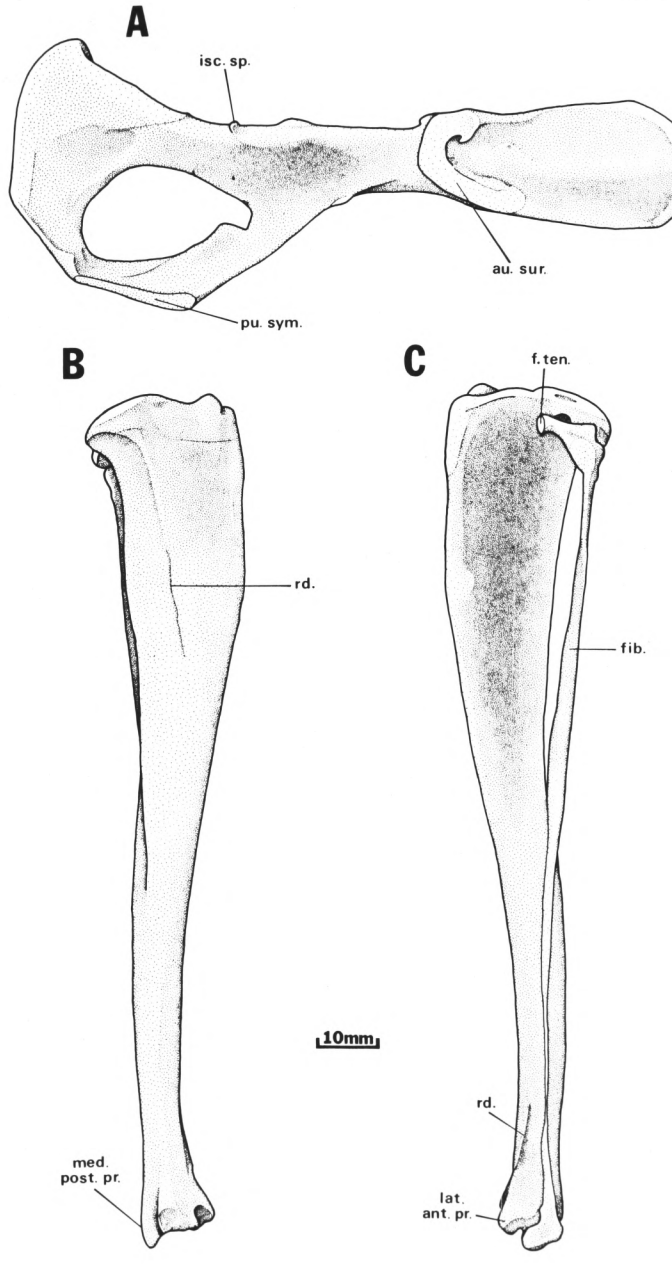

A
isc. sp.
au. sur.
pu. sym.
B
rd.
med.
post. pr.
C
f. ten.
fib.
10mm
rd.
lat.
ant. pr.

Figure 2.23 : Pedetes surdaster. Left astragalus.

A) Dorsal view : OUM13554

B) Ventral view : OUM13554

C) Medial view : OUM13554

D) Lateral view : OUM13554

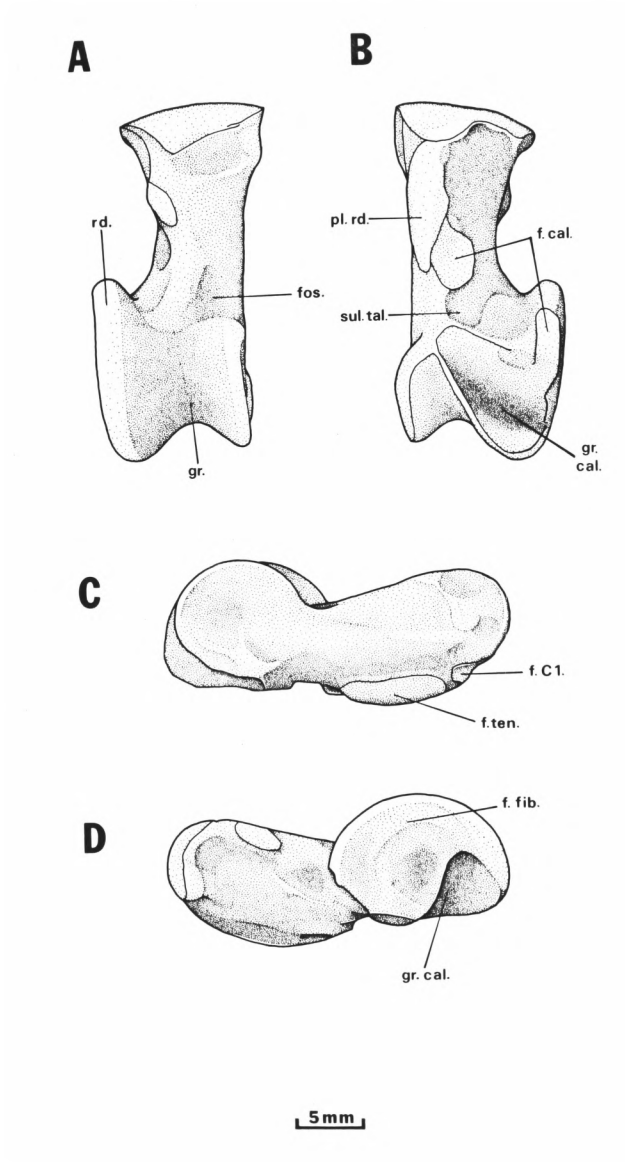

A
B
rd.
fos.
gr.
pl. rd.
f. cal.
sul. tal.
gr. cal.
C
f. C1.
f. ten.
D
f. fib.
gr. cal.
5 mm

Figure 2.24 : Pedetes surdaster. Left calcaneum.

A) Medial view : OUM13554

B) Dorsal view : OUM13554

C) Lateral view : OUM13554

D) Ventral view : OUM13554

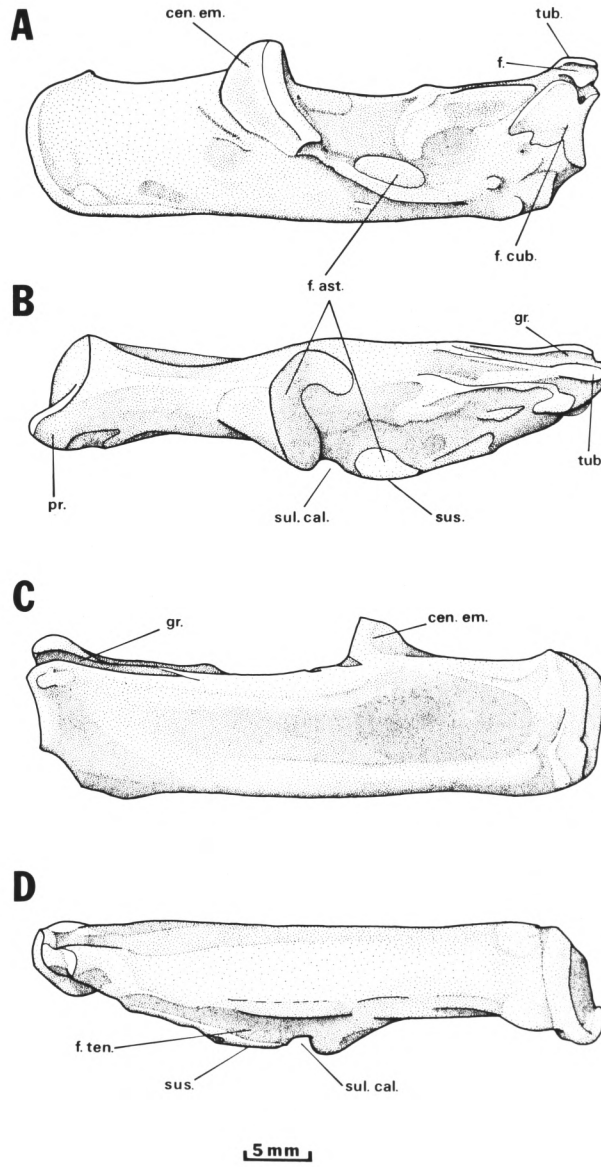

A
cen. em.
tub.
f.
f. cub.
f. ast.
B
gr.
tub.
pr.
sul. cal.
sus.
C
gr.
cen. em.
D
f. ten.
sus.
sul. cal.
5 mm

Figure 2.25 : Pedetes surdaster. Tarsal bones.

A) Left cuboid, dorsal view : OUM13554

B) Left cuboid, lateral view : OUM13554

C) Left cuboid, medial view : OUM13554

D) Left cuboid, ventral view : OUM13554

E) Left navicular, lateral view : OUM13554

F) Left navicular, distal view : OUM13554

G) Left navicular, medial view : OUM13554

H) Left navicular, proximal view : OUM13554

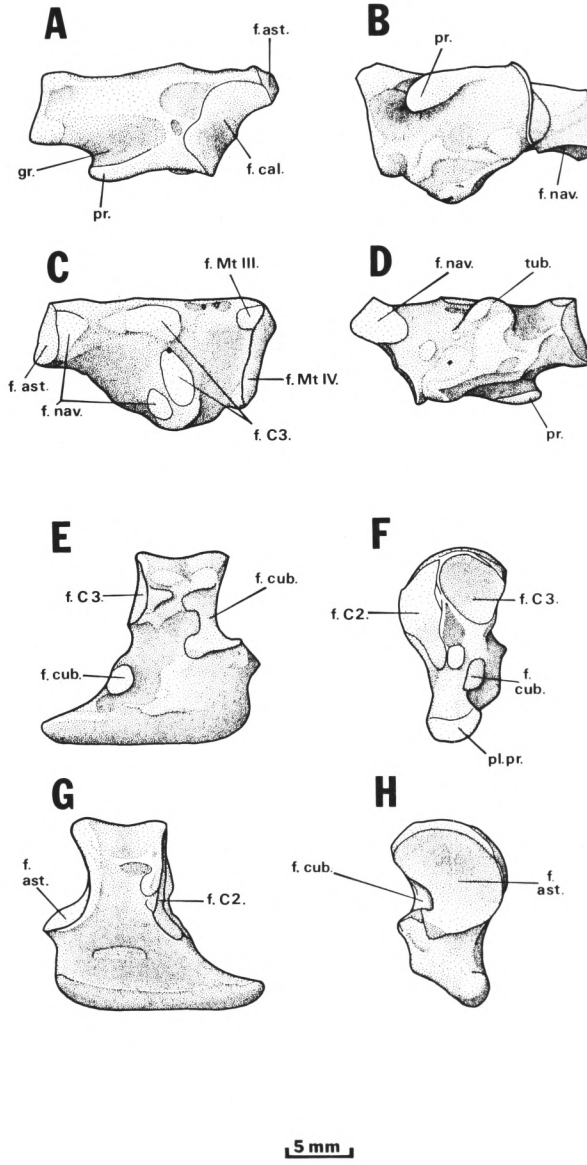

A
f.ast.
gr.
f. cal.
pr.
B
pr.
f. nav.
C
f. Mt III.
f. ast.
f. nav.
f. Mt IV.
f. C3.
D
f. nav.
tub.
pr.
E
f. C3.
f. cub.
f. cub.
F
f. C2.
f. C3.
f. cub.
pl.pr.
G
f. ast.
f. C2.
H
f. cub.
f. ast.
5 mm

Figure 2.26 : Pedetes surdaster. Tarsal bones and metatarsal II.

A) Left C1, lateral view : OUM13554

B) Left C2, lateral view : OUM13554

C) Left C1, medial view : OUM13554

D) Left C2, medial view : OUM13554

E) Left C3, lateral view : OUM13554

F) Left C3, dorsal view : OUM13554

G) Left C3, medial view : OUM13554

H) Left Mt.II, dorsal view : OUM13554

I) Left Mt.II, lateral view : OUM13554

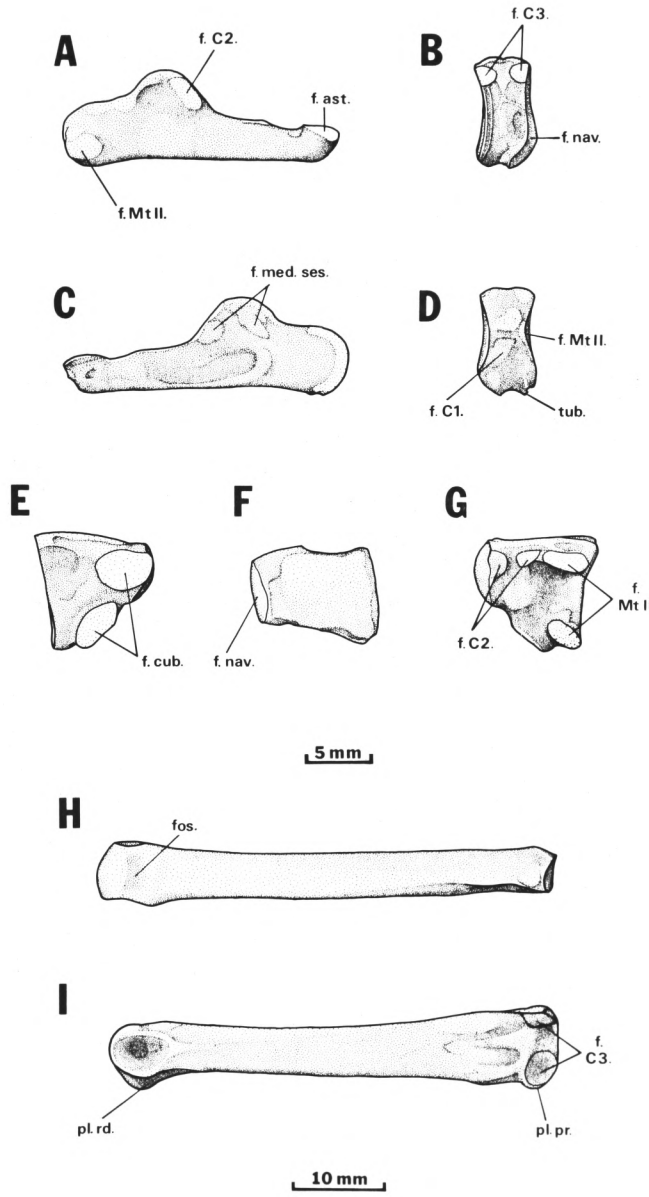

A
f. C2.
f. ast.
f. Mt II.
B
f. C3.
f. nav.
C
f. med. ses.
D
f. Mt II.
f. C1.
tub.
E
f. cub.
F
f. nav.
G
f. Mt II.
f. C2.
5 mm
H
fos.
I
f. C3.
pl. rd.
pl. pr.
10 mm

Figure 2.27 : Pedetes surdaster. Metatarsals.

A) Left Mt.II, ventral view : OUM13554

B) Left Mt.II, medial view : OUM13554

C) Left Mt.III, dorsal view : OUM13554

D) Left Mt.III, lateral view : OUM13554

E) Left Mt.III, ventral view : OUM13554

F) Left Mt.III, medial view : OUM13554

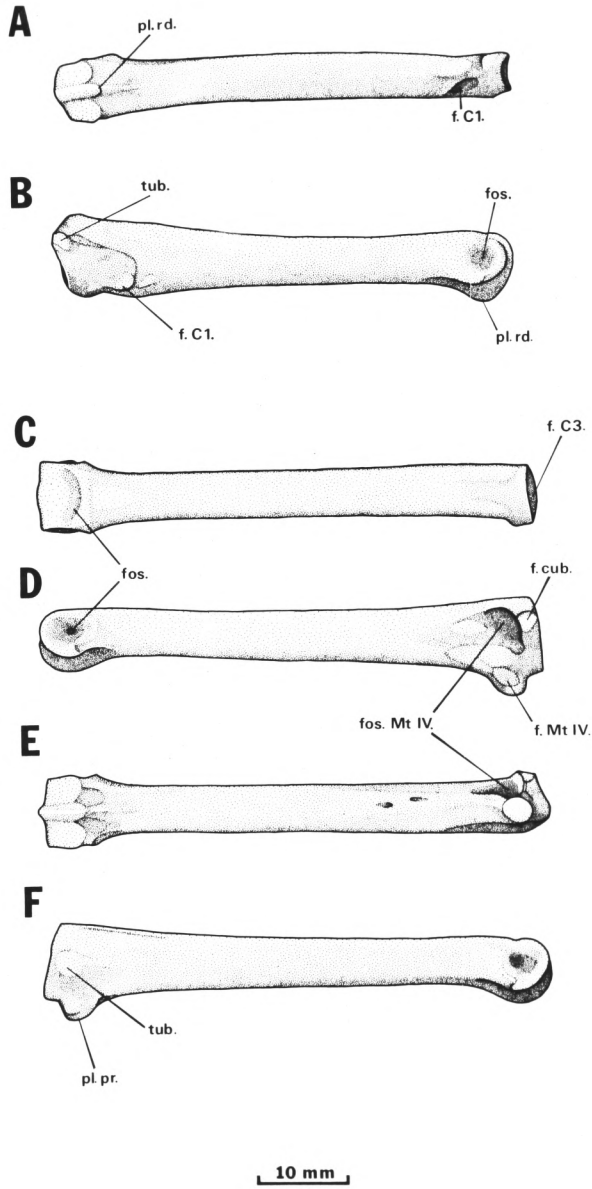

A
pl. r d.
f. C1.
B
tub.
fos.
f. C1.
pl. rd.
C
f. C3.
D
fos.
f. cub.
fos. Mt IV.
f. Mt IV.
E
F
tub.
pl. pr.
10 mm

Figure 2.28 : Pedetes surdaster. Metatarsals.

A) Left Mt.IV, dorsal view : OUM13554

B) Left Mt.IV, lateral view : OUM13554

C) Left Mt.IV, ventral view : OUM13554

D) Left Mt.IV, medial view : OUM13554

E) Left Mt.V, dorsal view : OUM13554

F) Left Mt.V, lateral view : OUM13554

G) Left Mt.V, ventral view : OUM13554

H) Left Mt.V, medial view : OUM13554

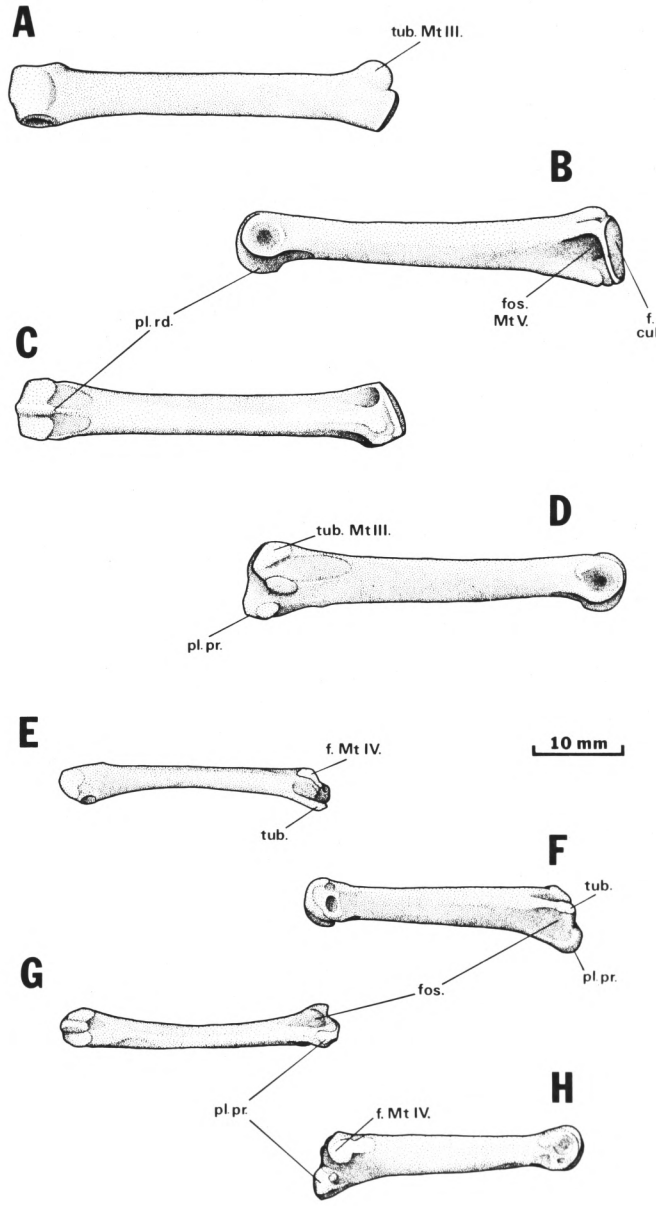

A
tub. Mt III.
B
fos.
Mt V.
f.
cub.
pl. rd.
C
D
tub. Mt III.
pl. pr.
E
f. Mt IV.
10 mm
tub.
F
tub.
pl. pr.
G
fos.
pl. pr.
H
f. Mt IV.

Figure 2.29 : Pedetes surdaster. Phalanges of the pes.

A) Left digit 3, Ph.I, lateral view : OUM13554

B) Left digit 3, Ph.I, dorsal view : OUM13554

C) Right digit 3, Ph.I, ventral view : OUM13554

D) Left digit 5, Ph.I, dorsal view : OUM13554

E) Right digit 4, Ph.I, dorsal view (reversed so as to appear as left digit 4) : OUM13554

F) Left digit 2, Ph.I, dorsal view : OUM13554

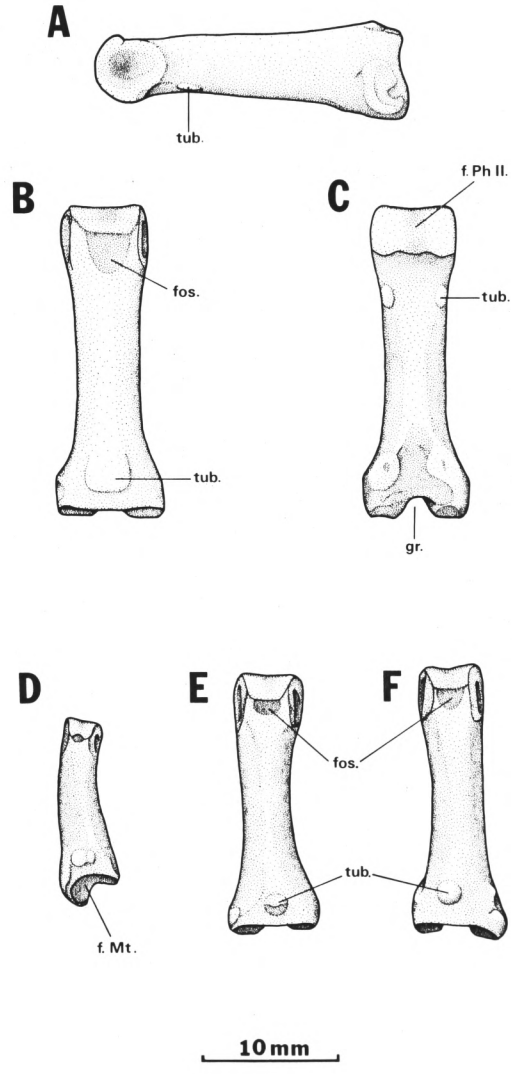

A
tub.
B
fos.
tub.
C
f. Ph II.
tub.
gr.
D
f. Mt.
E
F
fos.
tub.
10 mm

Figure 2.30 : Pedetes surdaster. Phalanges of the pes.

A) Left digit 3, Ph.II, lateral view : OUM13554

B) Left digit 3, Ph.II, dorsal view : OUM13554

C) Left digit 3, Ph.II, ventral view : OUM13554

D) Right digit 5, Ph.II, dorsal view : OUM13554

E) Right digit 4, Ph.II, dorsal view : OUM13554

F) Left digit 2, Ph.II, dorsal view : OUM13554

G) Digit 3, Ph.III, dorsal view : OUM uncatalogued

H) Digit 3, Ph.III, lateral view : OUM uncatalogued

I) Digit 3, Ph.III, ventral view : OUM uncatalogued

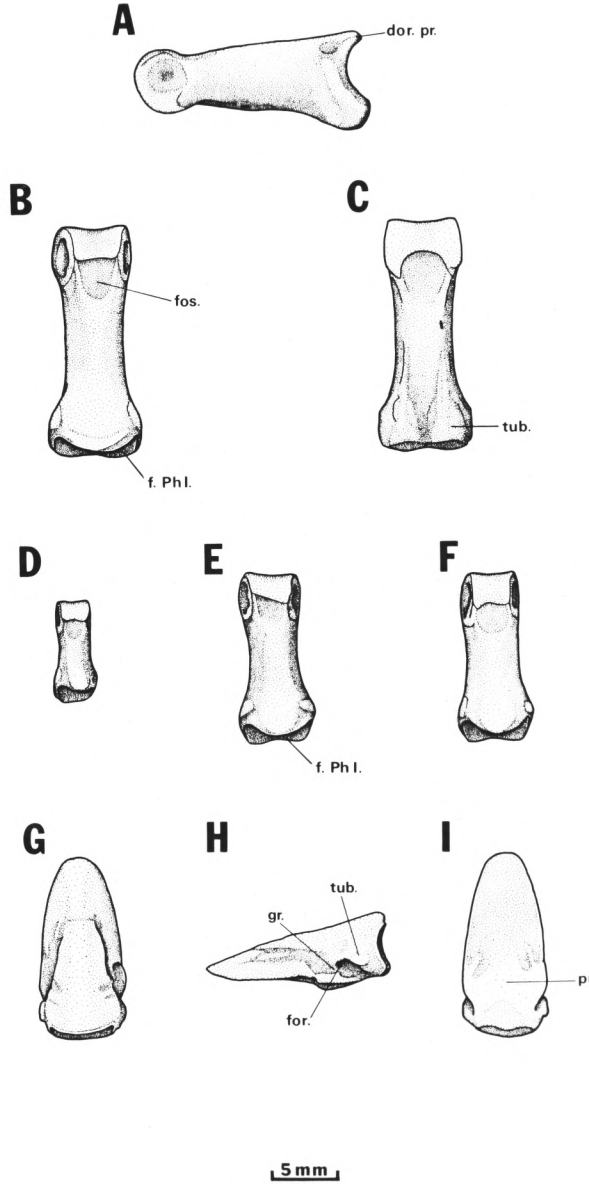

A
dor. pr.
B
fos.
f. Phl.
C
tub.
D
E
f. Phl.
F
G
H
tub.
gr.
for.
I
pr.
5 mm

Figure 3.1 : Megapedetes pentadactylus. Cranium.

A) Dorsal aspect : restoration based on BM(NH) M21571 & BM(NH) M21604

B) Profile : restoration based on BM(NH) M21571, BM(NH) M21604 & Sgr. 258'48

C) Ventral aspect : restoration based on BM(NH) M21571, BM(NH) M21604 & Sgr. 258'48

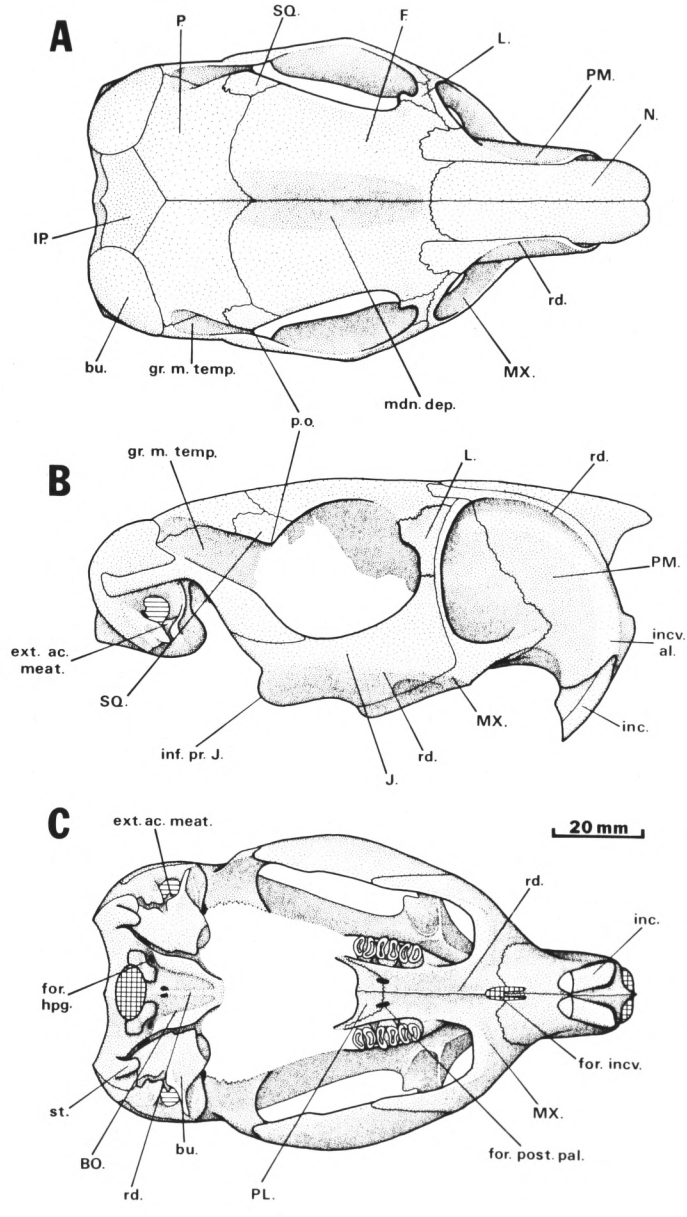

A
P
SQ.
F
L.
PM.
N.
IP.
rd.
bu.
gr. m. temp.
MX.
mdn. dep.
p.o.
B
gr. m. temp.
L.
rd.
PM.
incv.
al.
ext. ac.
meat.
SQ.
MX.
inc.
inf. pr. J.
rd.
J.
C
ext. ac. meat.
20 mm
rd.
inc.
for.
hpg.
for. incv.
st.
MX.
BO.
bu.
for. post. pal.
rd.
PL.

Figure 3.2 : Megapedetes pentadactylus. Mandible and cheekteeth.

A) Right mandibular ramus, lateral aspect : restoration based on BM(NH) M21573 & BM(NH) M21607

B) Right mandibular ramus, medial aspect : restoration based on BM(NH) M21573 & BM(NH) M21607

C) Isolated cheektooth : KNM-Ru 4062

D) Isolated cheektooth : KNM-Ru 4063

E) Isolated cheektooth : KNM-Ru 4081

F) Isolated cheektooth : KNM-So 1504

G) Isolated cheektooth : KNM-So 1503

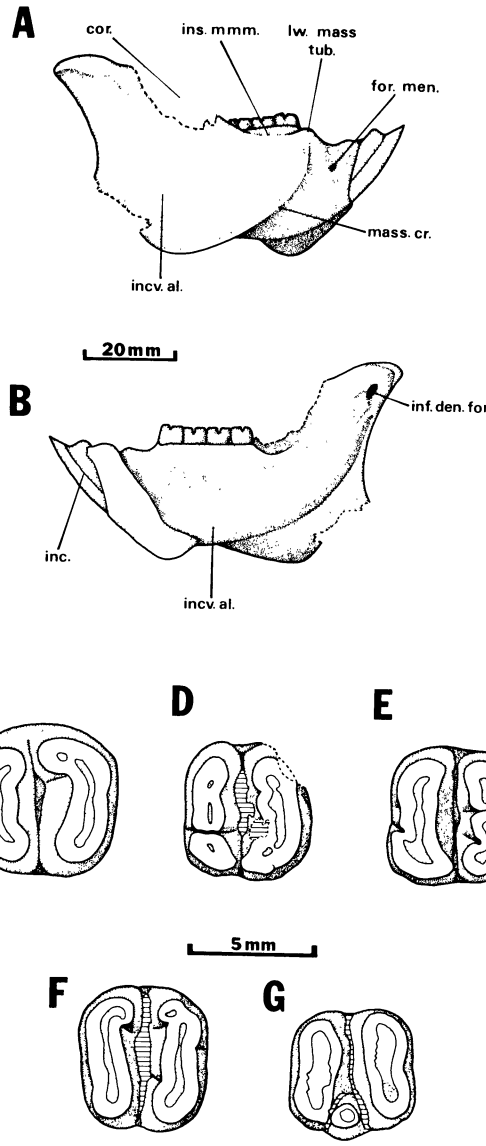

A
cor.
ins. mmm.
lw. mass
tub.
for. men.
mass. cr.
incv. al.
20mm
B
inf. den. for.
inc.
incv. al.
C
D
E
5mm
F
G

Figure 3.3 : Megapedetes pentadactylus. Cervical vertebrae, clavicle and radius and ulna.

A) Atlas vertebra, anterior view : restoration based on BM(NH) M21599

B) Atlas vertebra, posterior view : restoration based on BM(NH) M21599

C) Axis vertebra, lateral view : BM(NH) M21574

D) Right clavicle, posterior view : BM(NH) M21601

E) Right clavicle, anterior view : BM(NH) M21601

F) Right radius and ulna, anterior view : BM(NH) M21615

A - C : use the upper scale line

D - F : use the lower scale line

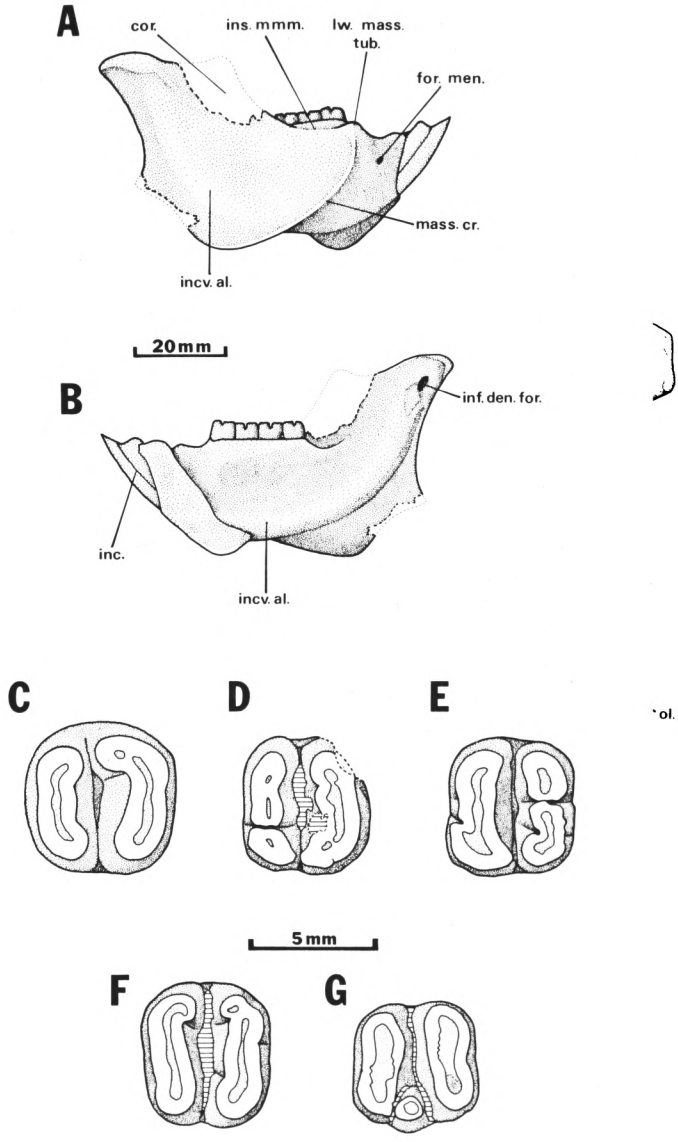

A
cor.
ins. mmm.
lw. mass.
tub.
for. men.
mass. cr.
incv. al.
20mm
B
inf. den. for.
inc.
incv. al.
C
D
E
5mm
F
G

Figure 3.4 : Megapedetes pentadactylus. Forelimb.

A) Right scapula, lateral view : BM(NH) M21612

B) Right humerus, anterior view : BM(NH) M21575

C) Right humerus, posterior view : BM(NH) M21575

Amongst the preserved humeri of M. pentadactylus the specimen BM(NH) M21575 is unusual in possessing an entepicondylar foramen.

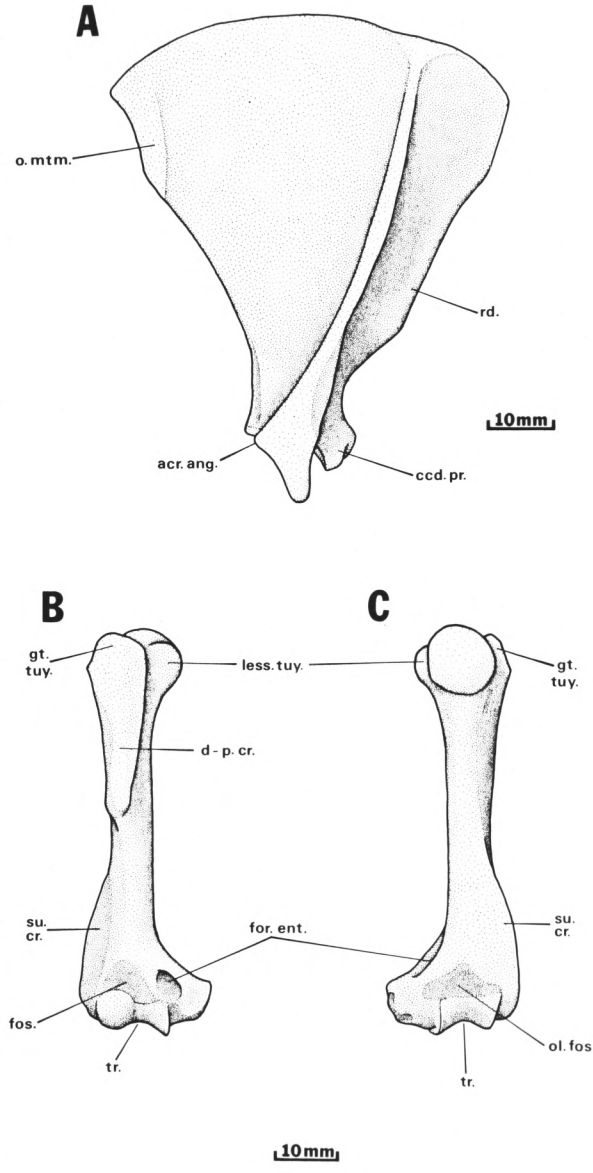

A
o. mtm.
rd.
10mm
acr. ang.
ccd. pr.
B
C
gt. tuy.
less. tuy.
gt. tuy.
d - p. cr.
su. cr.
for. ent.
su. cr.
fos.
tr.
ol. fos.
tr.
10mm

Figure 3.5 : Megapedetes pentadactylus. Forelimb.

A) Left ulna, lateral view : BM(NH) M21603

B) Left ulna, medial view : BM(NH) M21603

C) Left radius, posterior view : BM(NH) M21602

D) Left radius, anterior view : BM(NH) M21602

E) Right manus, palmar view : BM(NH) M21576

A - D : use the upper scale line

E : use the lower scale line.

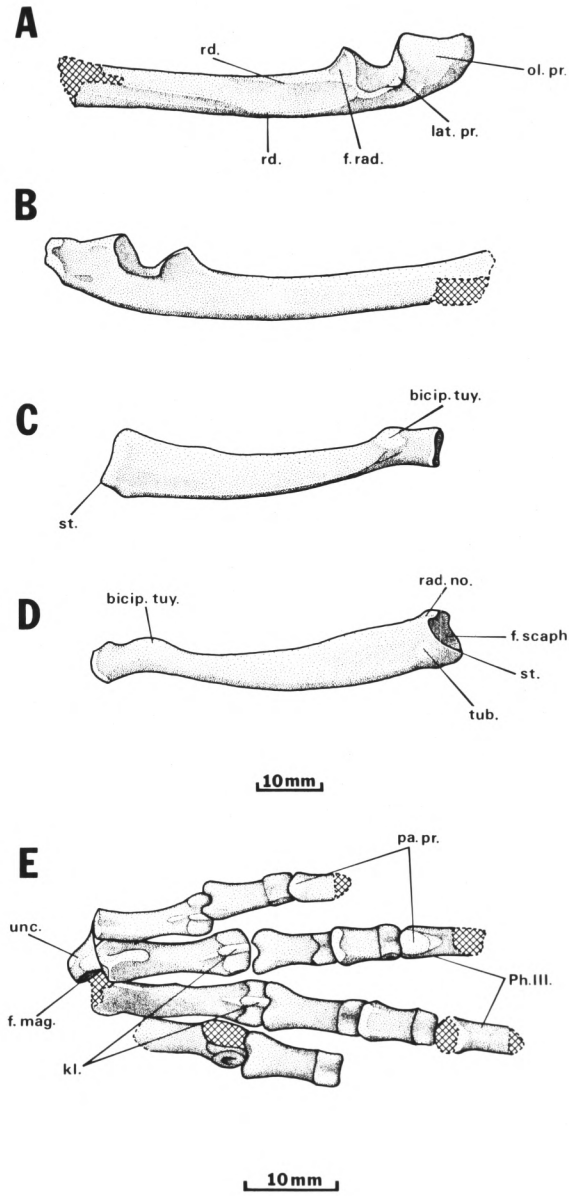

A
rd.
ol. pr.
lat. pr.
rd.
f. rad.
B
C
bicip. tuy.
st.
D
bicip. tuy.
rad. no.
f. scaph.
st.
tub.
10mm
E
pa. pr.
unc.
Ph. III.
f. mag.
kl.
10mm

Figure 3.6 : Megapedetes pentadactylus. Metacarpals and hindlimb.

A) Left Mc.III and Mc.IV, dorsal view : BM(NH) M21591

B) Damaged left innominate bone, lateral view : BM(NH) M21577

C) Right femur, anterior view : BM(NH) M21578

D) Right femur, posterior view : BM(NH) M21578

A : use the upper scale line

B - D : use the lower scale line

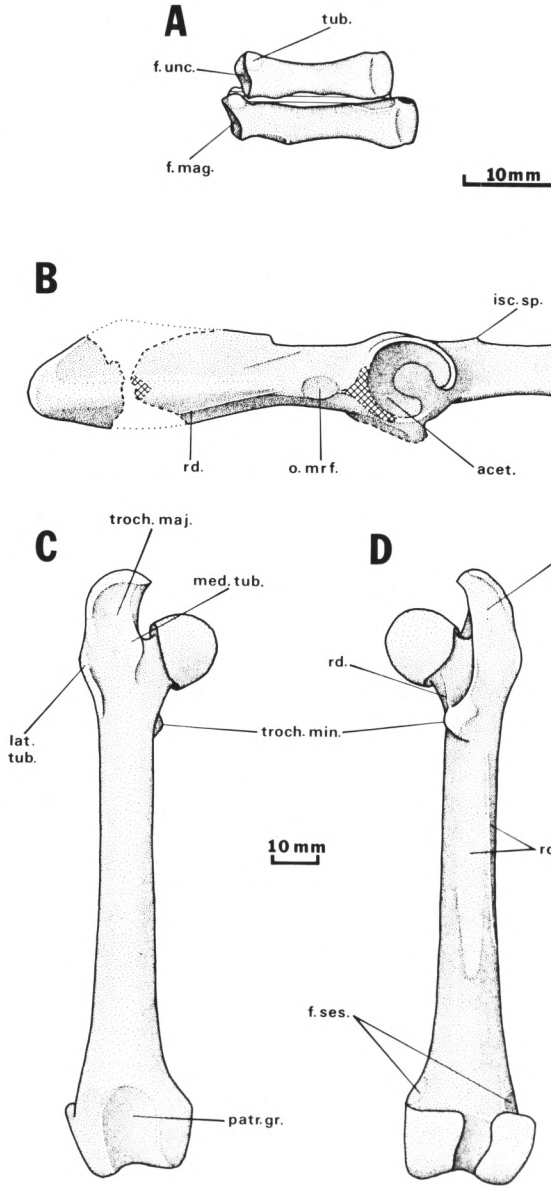

A
tub.
f. unc.
f. mag.
10mm
B
isc. sp.
rd.
o. mr f.
acet.
C
troch. maj.
med. tub.
lat. tub.
troch. min.
10 mm
patr. gr.
D
troch. maj.
rd.
rd.
f. ses.

Figure 3.7 : Megapedetes pentadactylus. Pes.

A) Left pes, dorsal view : BM(NH) M21580

B) Right pes (part), dorsal view : BM(NH) M21598

C) Right calcaneum, dorsal view : BM(NH) M21598

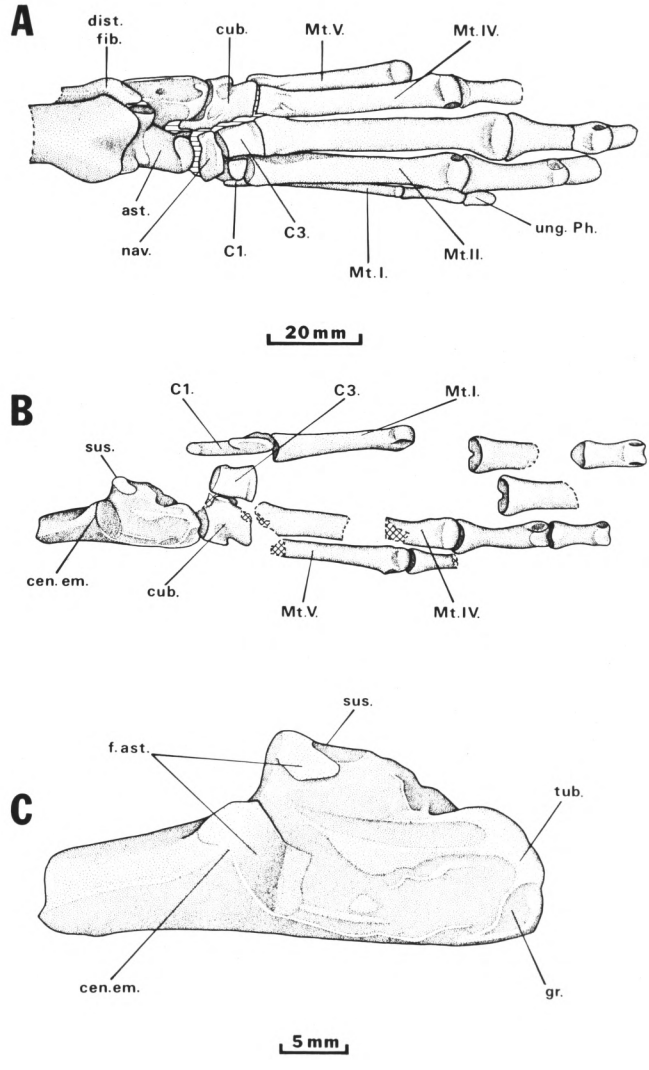

A
dist.
fib.
cub.
Mt.V.
Mt.IV.
ast.
nav.
C1.
C3.
Mt.I.
Mt.II.
ung. Ph.
20 mm
B
C1.
C3.
Mt.I.
sus.
cen. em.
cub.
Mt.V.
Mt.IV.
C
sus.
f. ast.
tub.
cen.em.
gr.
5 mm

Figure 3.8 : Megapedetes pentadactylus. Tarsal bones.

A) Right C1, medial view : based on BM(NH) M21598 & LG29/5

B) Right astragalus, dorsal view : KNM-Ru 4051

C) Right astragalus, ventral view : KNM-Ru 4051

D) Right astragalus, lateral view : KNM-Ru 4051

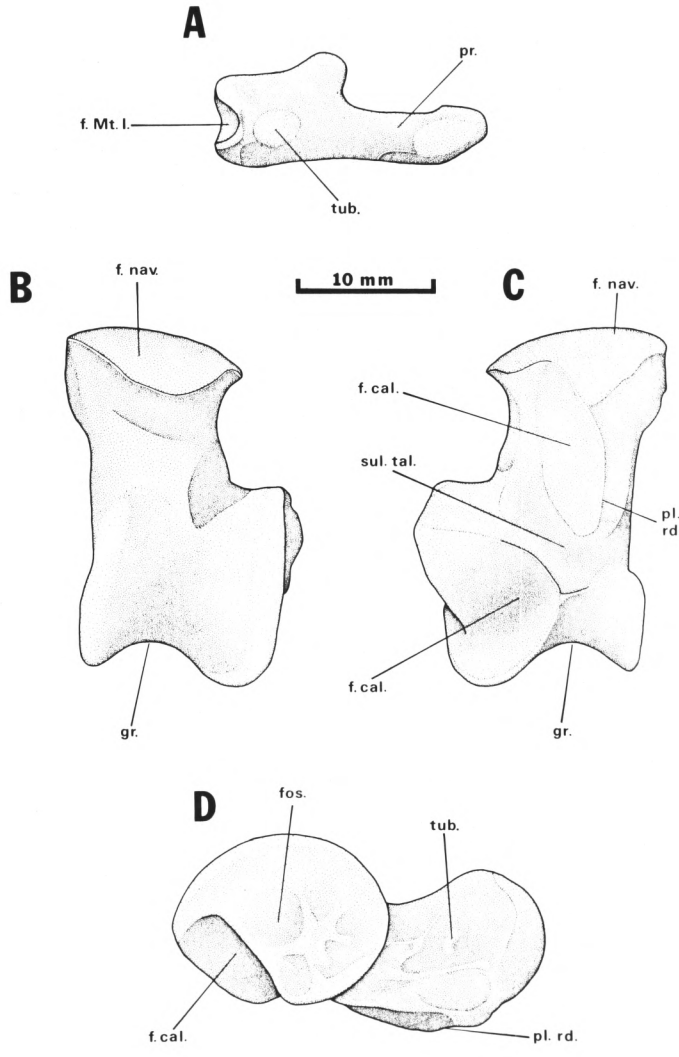

A
pr.
f. Mt. l.
tub.
B
f. nav.
10 mm
gr.
C
f. nav.
f. cal.
sul. tal.
pl.
rd.
f. cal.
gr.
D
fos.
tub.
f. cal.
pl. rd.

Figure 3.9 : Megapedetes pentadactylus. Tarsal bones.

A) Right calcaneum and astragalus, dorsal view : BM(NH) M21617

B) Right calcaneum and astragalus, ventral view : BM(NH) M21617

C) Right calcaneum and astragalus, medial view : BM(NH) M21617

D) Right calcaneum and astragalus, lateral view : BM(NH) M21617

E) Right C2, medial view : LG29/5

F) Right C2, lateral view : LG29/5

G) Right C3, lateral view : LG29/5

H) Right C3, proximal view : LG29/5

I) Right C3, medial view : LG29/5

A - D : use the upper scale line

E - I : use the lower scale line

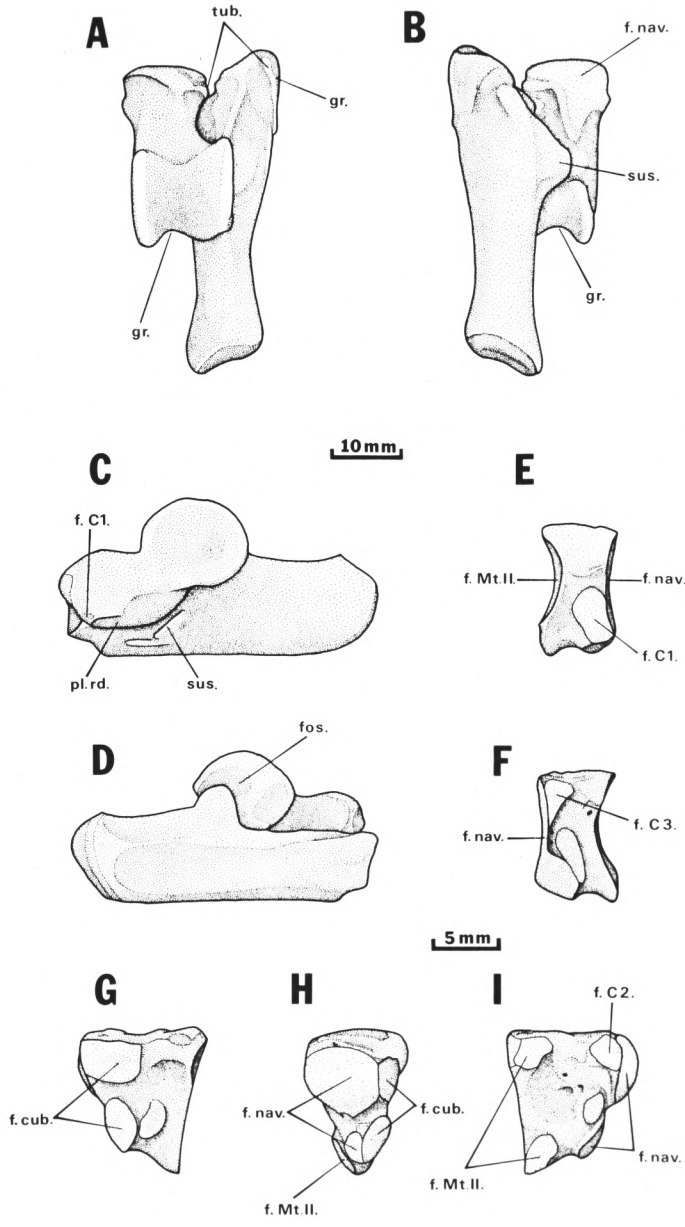

A
tub.
gr.
gr.
B
f. nav.
sus.
gr.
10mm
C
f. C1.
pl. rd.
sus.
E
f. Mt. II.
f. nav.
f. C1.
D
fos.
F
f. nav.
f. C 3.
5mm
G
f. cub.
H
f. nav.
f. cub.
f. Mt. II.
I
f. C 2.
f. nav.
f. Mt. II.

Figure 3.10 : Megapedetes pentadactylus. Tarsal bones.

A) Right cuboid, dorsal view : LG29/5

B) Right cuboid, medial view : LG29/5

C) Right cuboid, distal view : LG29/5

D) Right cuboid, proximal view : LG29/5

E) Right cuboid, lateral view : LG29/5

F) Right navicular, proximal view : LG29/5

G) Right navicular, distal view : LG29/5

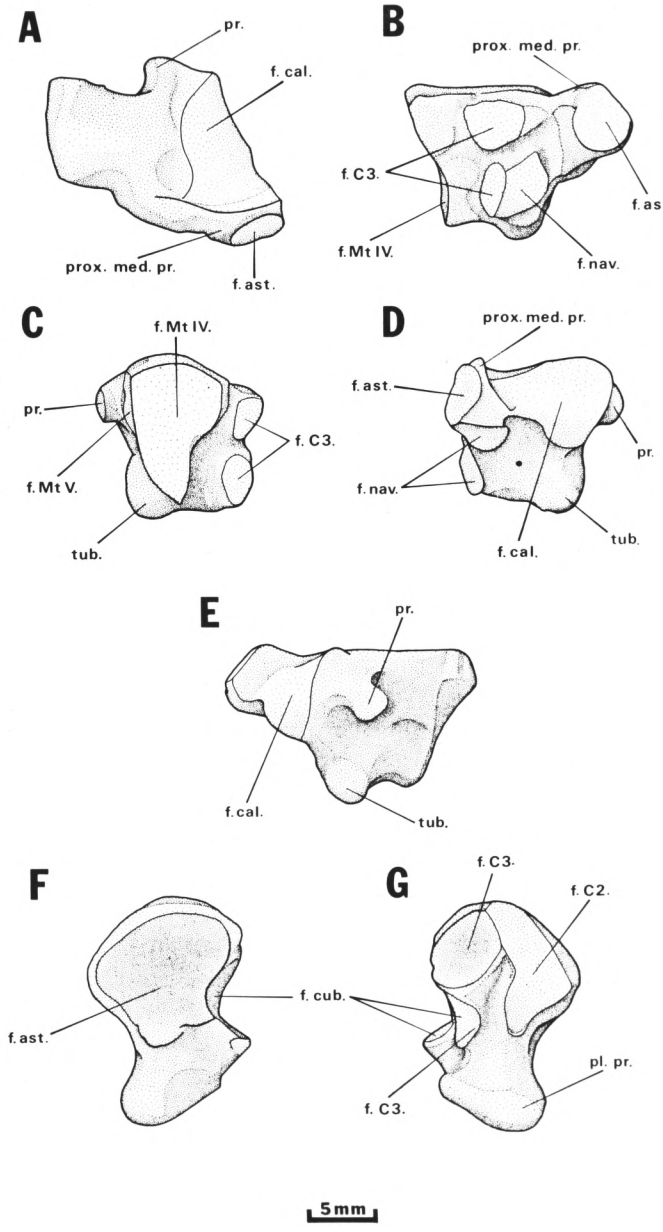

A
pr.
f. cal.
prox. med. pr.
f. ast.
B
prox. med. pr.
f. C3.
f. ast.
f. Mt IV.
f. nav.
C
f. Mt IV.
pr.
f. C3.
f. Mt V.
tub.
D
prox. med. pr.
f. ast.
pr.
f. nav.
tub.
f. cal.
E
pr.
f. cal.
tub.
F
f. ast.
f. cub.
G
f. C3.
f. C2.
pl. pr.
f. C3.
5mm

Figure 3.11 : Megapedetes pentadactylus. Pes.

A) Right navicular, medial view : LG29/5

B) Right navicular, lateral view : LG29/5

C) Right metatarsus, dorsal view : based on BM(NH) M21618 & BM(NH) M21619

D) Left Mt.I, lateral view of proximal end : LG29/5

E) Left Mt.I, medial view of proximal end : LG29/5

F) Left Mt.I, dorsal view of proximal end : LG29/5

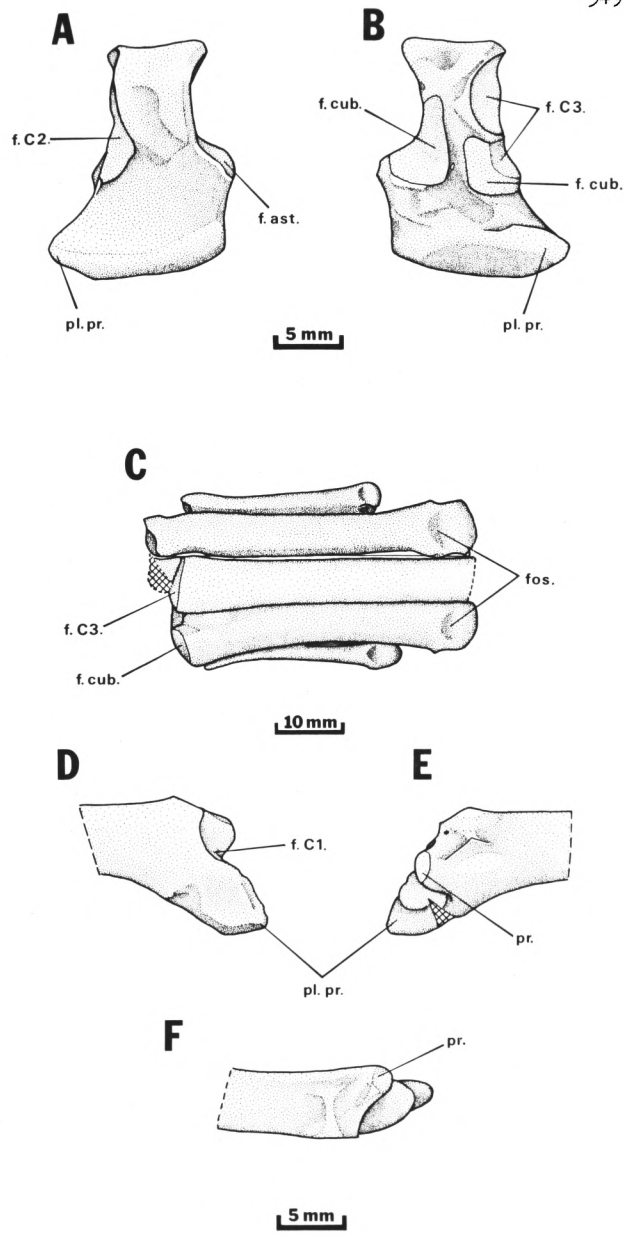

A
f. C2.
f. ast.
pl. pr.
B
f. cub.
f. C3.
f. cub.
pl. pr.
5 mm
C
fos.
f. C3.
f. cub.
10 mm
D
f. C1.
pl. pr.
E
pr.
F
pr.
5 mm

Figure 3.12 : Megapedetes pentadactylus. Pes and auditory bulla.

A) Right Mt.V, medial view of proximal end : LG29/5

B) Right Mt.V, lateral view of proximal end : LG29/5

C) Right Mt.V, dorsal view of proximal end : LG29/5

D) Phalanx II, dorsal view : Sgr. 425'48

E) Phalanx II, side view : Sgr. 425'48

F) Phalanx II, ventral view : Sgr. 425'48

G) Right auditory bulla, lateral view : Sgr. 258'48

H) Right auditory bulla, medial view : Sgr. 258'48

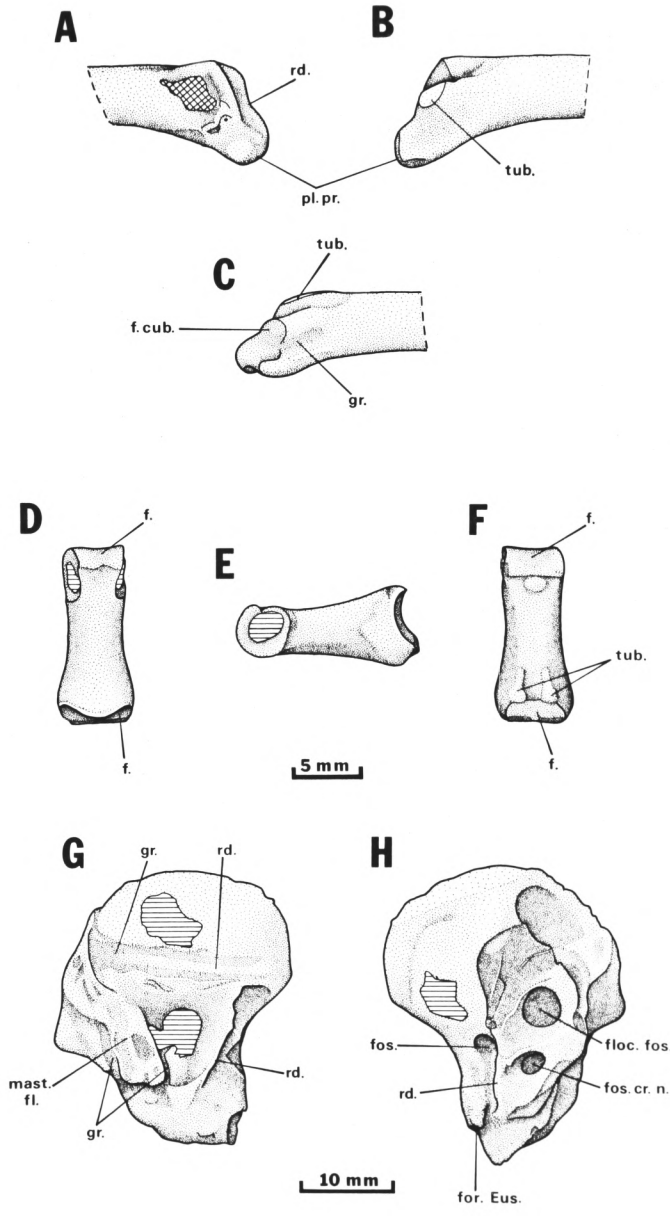

A
rd.
pl. pr.
B
tub.
C
tub.
f. cub.
gr.
D
f.
f.
E
5 mm
F
f.
tub.
f.
G
gr.
rd.
mast.
fl.
rd.
gr.
10 mm
H
fos.
floc. fos.
rd.
fos. cr. n.
for. Eus.

Figure 4.1 : Parapedetes namaquensis. Restoration of the cranium based on specimens 1926X501 & 1926X15b.

A) Dorsal aspect

B) Profile

C) Ventral aspect

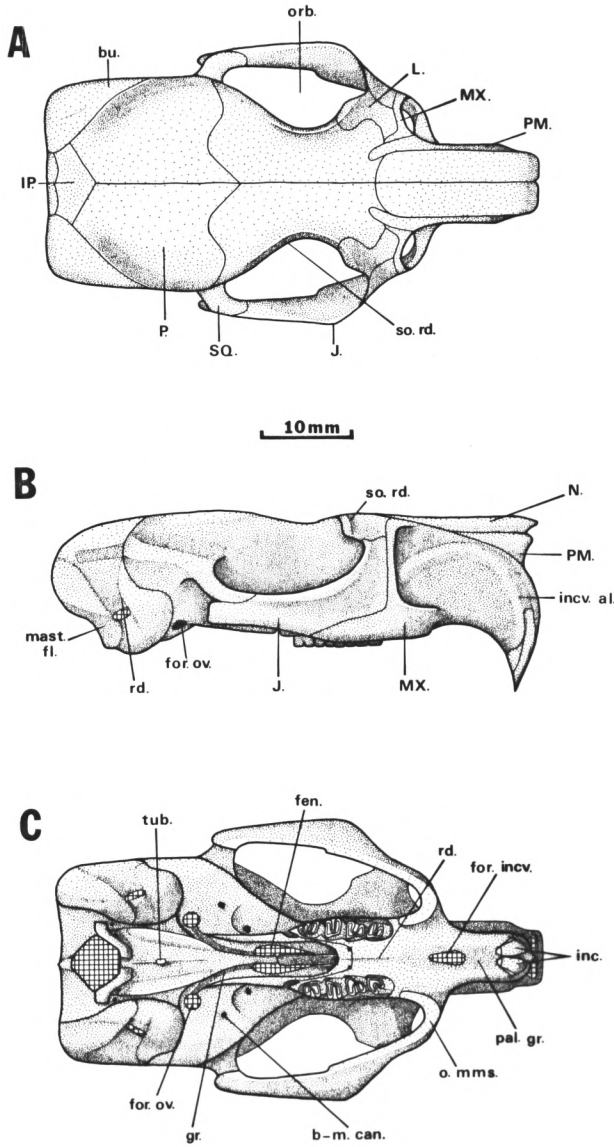

A
orb.
bu.
L.
MX.
PM.
IP.
P.
SQ.
J.
so. rd.
10mm
B
so. rd.
N.
PM.
incv. al.
mast.
fl.
for. ov.
rd.
J.
MX.
C
fen.
tub.
rd.
for. incv.
inc.
pal. gr.
o. mms.
for. ov.
gr.
b-m. can.

Figure 4.2 : Parapedetes namaquensis. Mandible and cheek-teeth.

A) Left upper cheekteeth : 1926X501 (Anterior to the right; lingual side to the top)

B) Right mandibular ramus, lateral aspect : restoration based on specimens 1926X15a & 1926X510U

C) Left mandibular ramus, medial aspect : restoration based on specimens 1926X15a & 1926X510U

D) Left lower cheekteeth : 1926X502 (Anterior to the right; buccal side to the top)

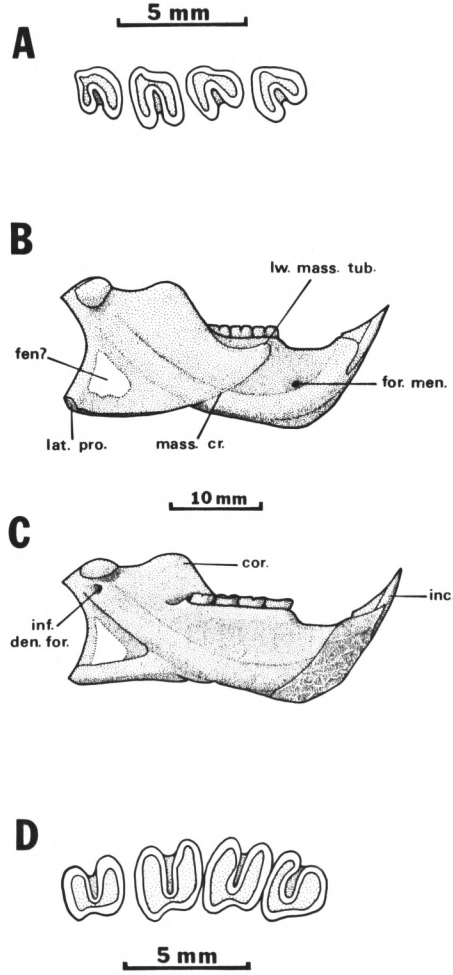

A
5 mm
B
lw. mass. tub.
fen?
for. men.
lat. pro.
mass. cr.
10 mm
C
cor.
inc.
inf.
den. for.
D
5 mm

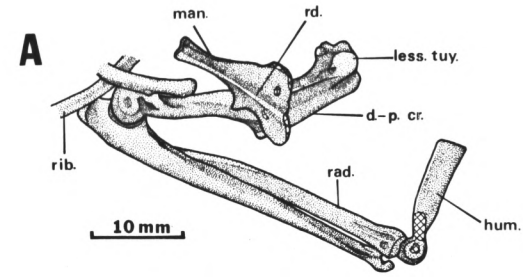
Figure 4.3 : Parapedetes namaquensis. Post-cranial bones.

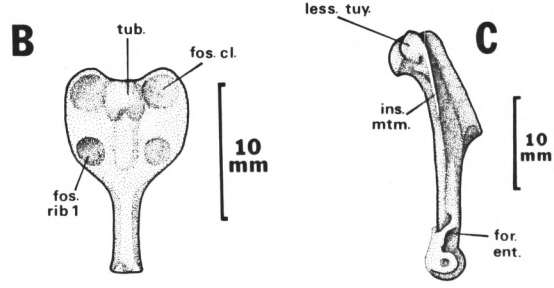
A) Left forelimb, distal right humerus and fragment of manubrium sterni, as preserved : lectotype, 1926X15a

B) Manubrium sterni, dorsal view : restoration based on specimens 1926X15a and 1926X510M

C) Left humerus, medial view : partial restoration based on 1926X15a

D) Left ulna and radius, medial view : 1926X15a


A
man.
rd.
less. tuy.
d-p. cr.
rib.
rad.
hum.
10 mm


B
tub.
fos. cl.
fos.
rib 1
10
mm
less. tuy.
C
ins.
mtm.
10
mm
for.
ent.

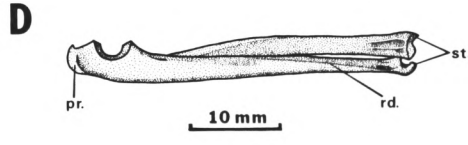

D
st.
pr.
rd.
10 mm

Figure 4.4 : Parapedetes namaquensis. Hindlimb bones.

A) Right femur, anterior view : 1926X510R

B) Right tibia, lateral view : 1926X511

C) Metatarsals and phalanges of the left pes with the first and third cuneiforms : restoration based on the remains in specimen 1926X510

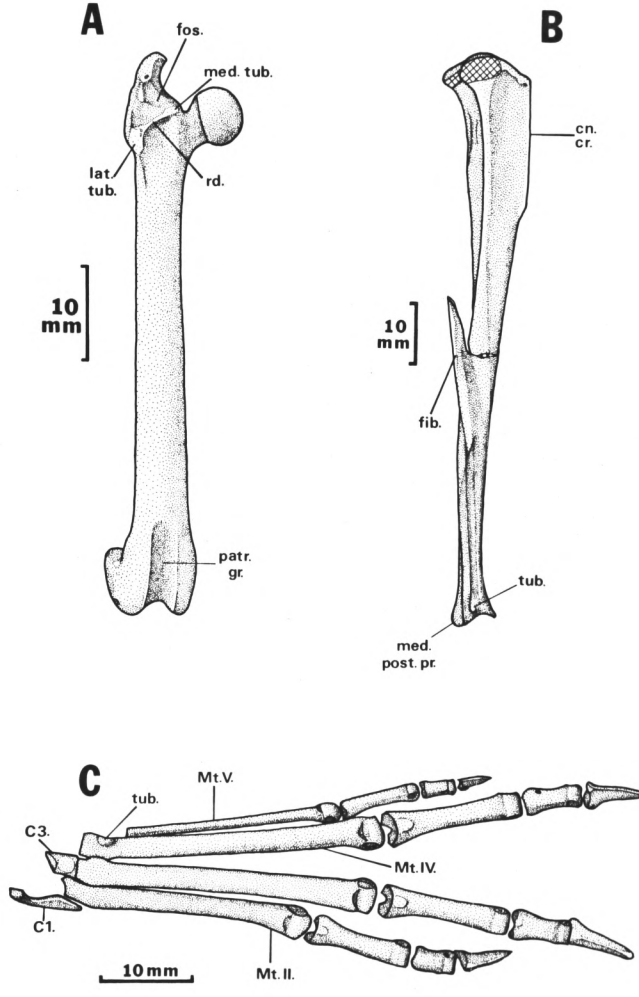

A
fos.
med. tub.
lat. tub.
rd.
10 mm
patr. gr.
B
cn. cr.
10 mm
fib.
tub.
med. post. pr.
C
Mt.V.
tub.
C3.
Mt.IV.
C1.
10 mm
Mt.II.

Figure 4.5 : Parapedetes namaquensis. Pes.

A) Right pes without the phalanges : 1926X510C, as preserved

B) Left calcaneum, dorsal view : 1926X510E

C) Digit 3, Ph.I, lateral view : 1926X510B

D) Digit 2, Ph.I, ventral view : 1926X510C

E) Digit ?, Ph.II, lateral view : 1926X510F

F) Digit 4, Ph.III, lateral view : partial restoration based on 1926X510D

G) Digit ?, Ph.III, ventral view : 1926X510

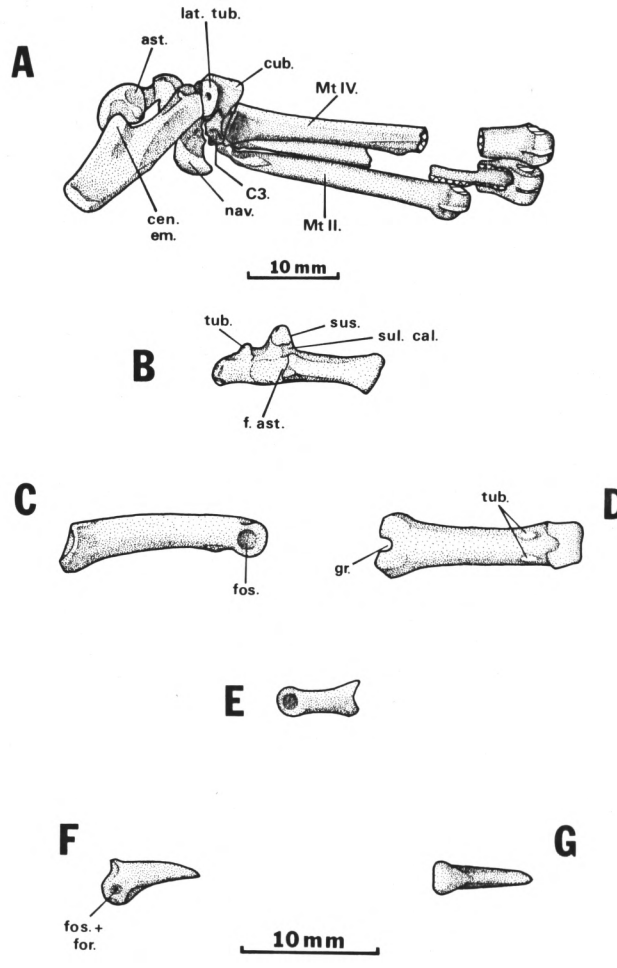

A
lat. tub.
ast.
cub.
Mt IV.
C3.
nav.
cen.
em.
Mt II.
10 mm
B
tub.
sus.
sul. cal.
f. ast.
C
fos.
D
tub.
gr.
E
F
fos. +
for.
10 mm
G

Figure 5.1 : Pedetes laetoliensis sp. n. Holotype skull (Laet.'79 5514).

A) Dorsal aspect : the cranium has been broken into two and repaired leaving a pronounced crack across the left frontal and the right parietal.

B) Profile : the mandible is held in place by matrix and is almost in the normal, articulated position; it has been displaced slightly toward the right side of the skull.

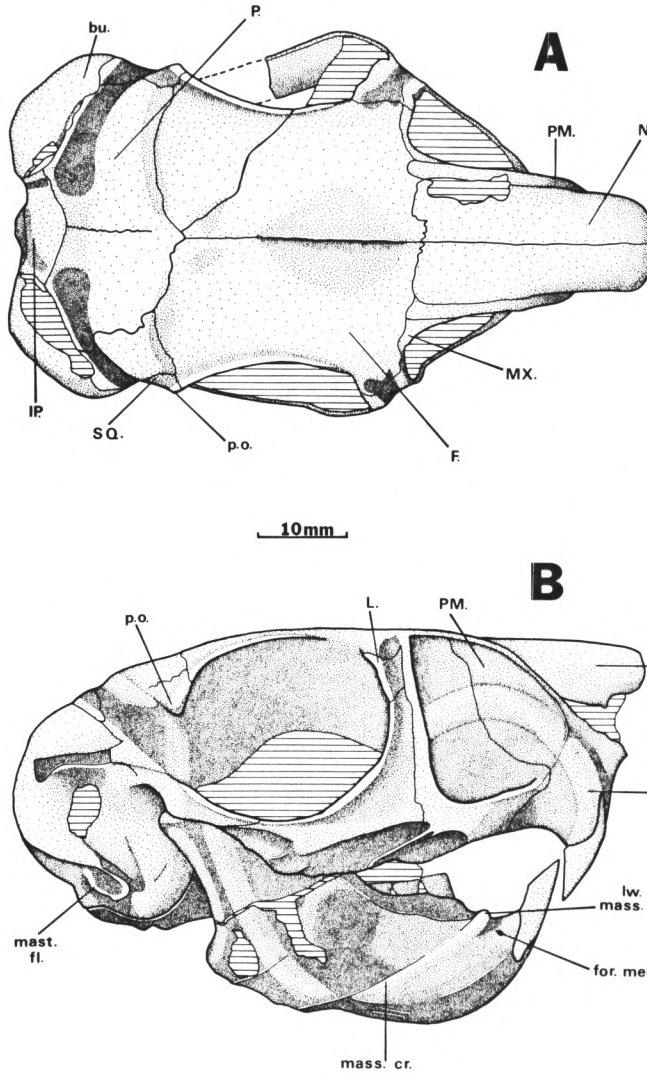

A
bu.
P.
PM.
N.
MX.
IP.
SQ.
p.o.
F.
10mm
B
p.o.
L.
PM.
N.
incv.
al
lw.
mass. tub.
mast.
fl.
for. men.
mass. cr.

Figure 5.2 : Pedetes laetoliensis sp. n. Cranium and cheekteeth.

A) Cranium, ventral aspect : restoration based on several specimens.

B) Left maxillary toothrow : Laet.'76 3966

C) Left mandibular toothrow, juvenile : Laet.'75 569

D) Left mandibular toothrow, young adult : Laet.'75 460

E) Left mandibular toothrow, old adult with m_3 missing : Laet.'75 1976

In figures B - E the anterior end of the toothrow is to the right of the page: in B the lingual side is to the top while in C - E the buccal side is to the top of the page.

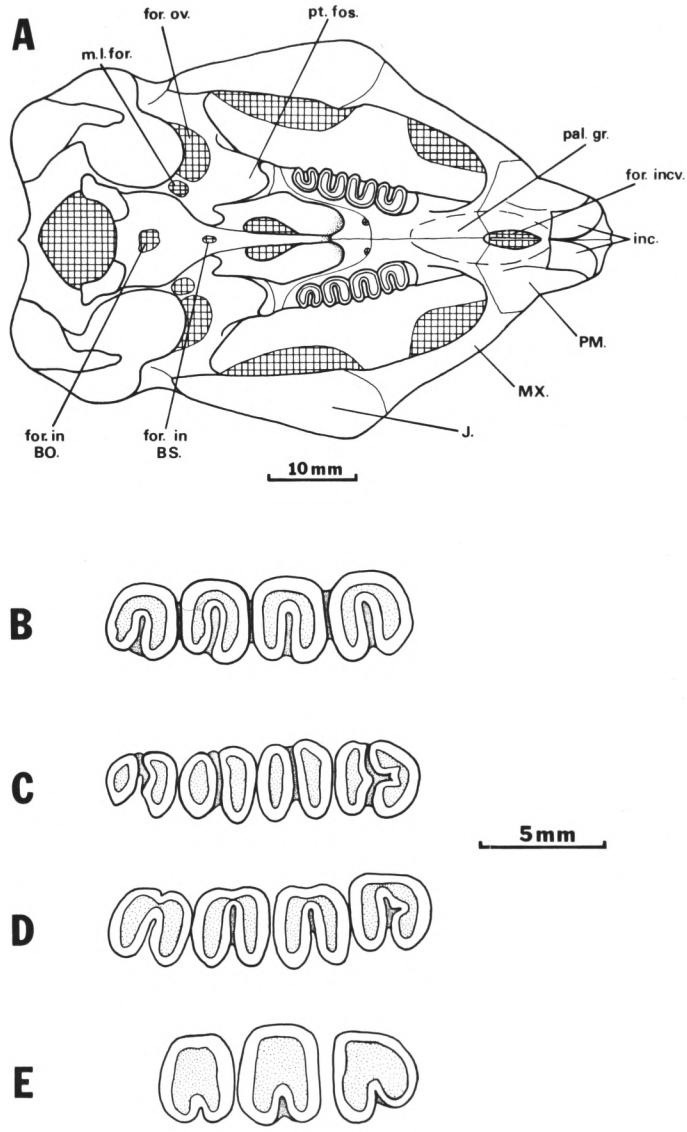

A
for. ov.
pt. fos.
m.l.for.
pal. gr.
for. incv.
inc.
PM.
MX.
J.
for. in BO.
for. in BS.
10mm
B
C
5mm
D
E

Figure 5.3 : Pedetes laetoliensis sp. n. Forelimb.

A) Left humerus, anterior view : LIT'59 125

B) Left humerus, posterior view : LIT'59 125 (The distal end of the humerus has been broken off but is now rejoined to the shaft.)

C) Distal left humerus, left radius and left ulna, lateral view : holotype (Laet.'79 5514)

D) Distal left humerus, left radius and left ulna, medial view : holotype (Laet.'79 5514)

E) Distal right humerus, right radius and right ulna : holotype (Laet.'79 5514)

F) Distal right humerus, right radius and right ulna : holotype (Laet.'79 5514)

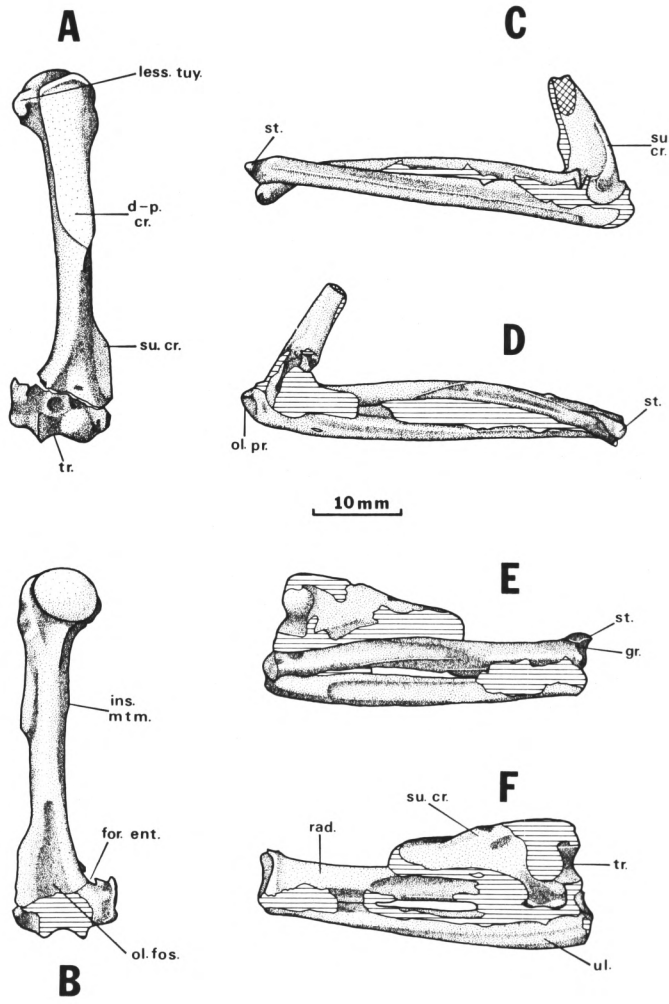

A
less. tuy.
d-p.
cr.
su. cr.
tr.
C
st.
su.
cr.
D
st.
ol. pr.
10mm
E
st.
gr.
F
su. cr.
rad.
tr.
ul.
B
ins.
m t m.
for. ent.
ol. fos.

Figure 5.4 : Pedetes laetoliensis sp. n. Innominate bone and femur.

A) Left innominate bone, lateral view (the plate of the ilium is restored [dashed lines] from the holotype; most of the pubis and ischium are not preserved) : Laet.'75 1943

B) Right femur, anterior view : holotype (Laet.'79 5514)

C) Right femur, posterior view : holotype (Laet.'79 5514) (The sesamoid [ses.] in the intercondylar notch is that from the tendon of origin of m. gastrocnemius caput laterale; its dorsal aspect is visible.)

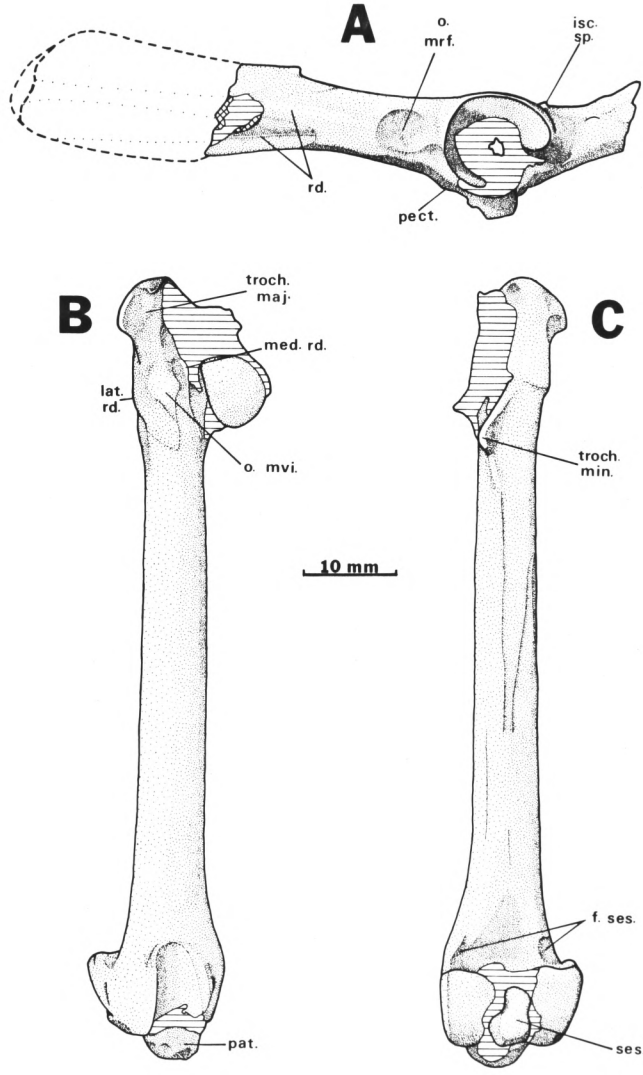

A
o.
mrf.
isc.
sp.
rd.
pect.
B
troch.
maj.
med. rd.
lat.
rd.
o. mvi.
pat.
10 mm
C
troch.
min.
f. ses.
ses.

Figure 5.5 : Pedetes laetoliensis sp. n. Tibia and pes, holotype (Laet.'79 5514).

A) Right tibia, astragalus and calcaneum, medial view

B) Right tibia, astragalus and calcaneum, lateral view

C) Right distal tarsus and metatarsus with the first phalanges restored (dotted), dorsal view

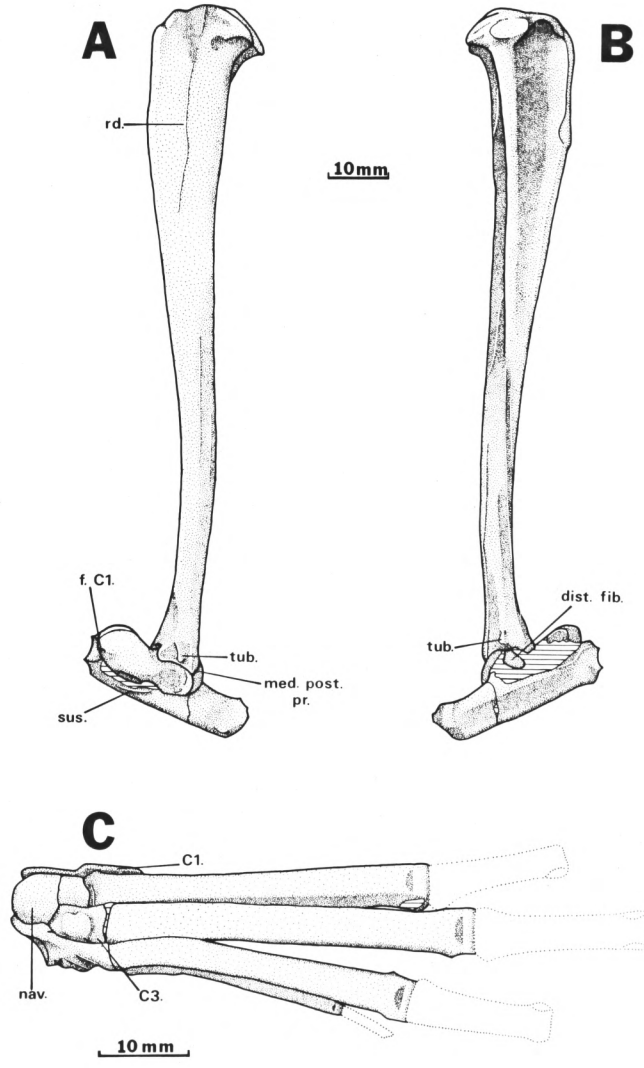

A
rd.
10mm
f. C1.
tub.
med. post. pr.
sus.
B
dist. fib.
tub.
C
C1.
nav.
C3.
10 mm

Figure 6.1 : Gen. et sp. indet. Cheektooth and bones of the pes.

A) Isolated cheektooth, occlusal view : KNM-Mb 429

B) Damaged right calcaneum, dorsal view : Ru 700'56 (I)

C) Damaged right calcaneum, ventral view : Ru 700'56 (I)

D) Damaged right calcaneum, lateral view : Ru 700'56 (I)

E) Damaged right calcaneum, medial view : Ru 700'56 (I)

F) Proximal right Mt.III and Mt.IV, dorsal view : Ru 514'47

G) Proximal right Mt.III and Mt.IV, ventral view : Ru 514'47

H) Proximal right Mt.III and Mt.IV, medial view : Ru 514'47

I) Proximal right Mt.III and Mt.IV, lateral view : Ru 514'47

(Vertical cross-hatching indicates broken bone.)

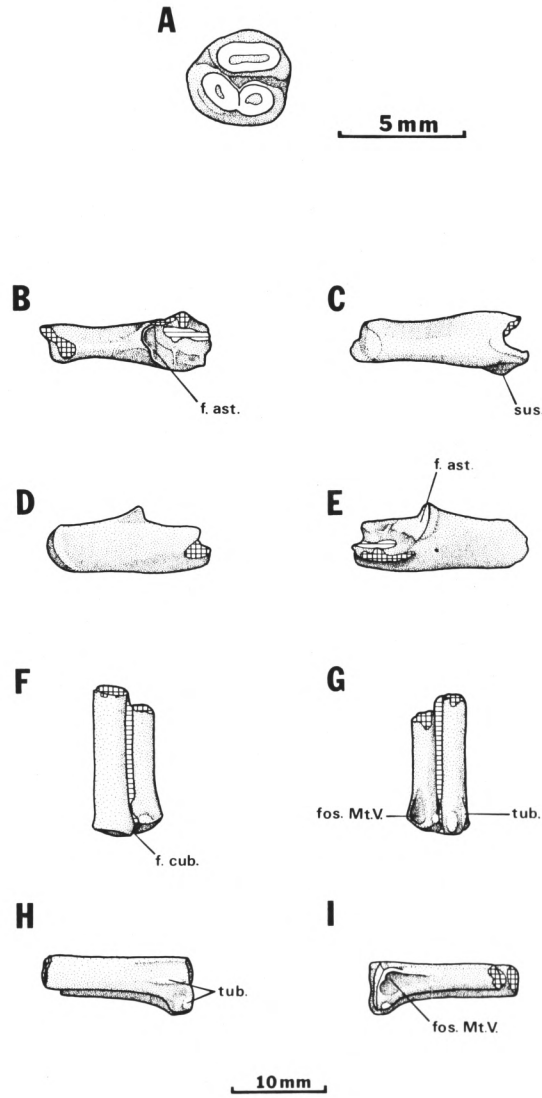

A
5 mm
B
f. ast.
C
sus.
D
E
f. ast.
F
f. cub.
G
fos. Mt.V.
tub.
H
tub.
I
fos. Mt.V.
10 mm

Figure 6.2 : A - D Gen. et sp. indet. Metatarsal II.
E Pedetes gracilis. Cranium.

A) Right Mt.II, dorsal view : no number, from Maboko

B) Right Mt.II, ventral view : no number, from Maboko

C) Right Mt.II, medial view : no number, from Maboko

D) Right Mt.II, lateral view : no number, from Maboko

E) Pedetes gracilis, cranium, palatal region : holotype (AM4194C)

(Vertical cross-hatching indicates large foramina and empty tooth alveoli.)

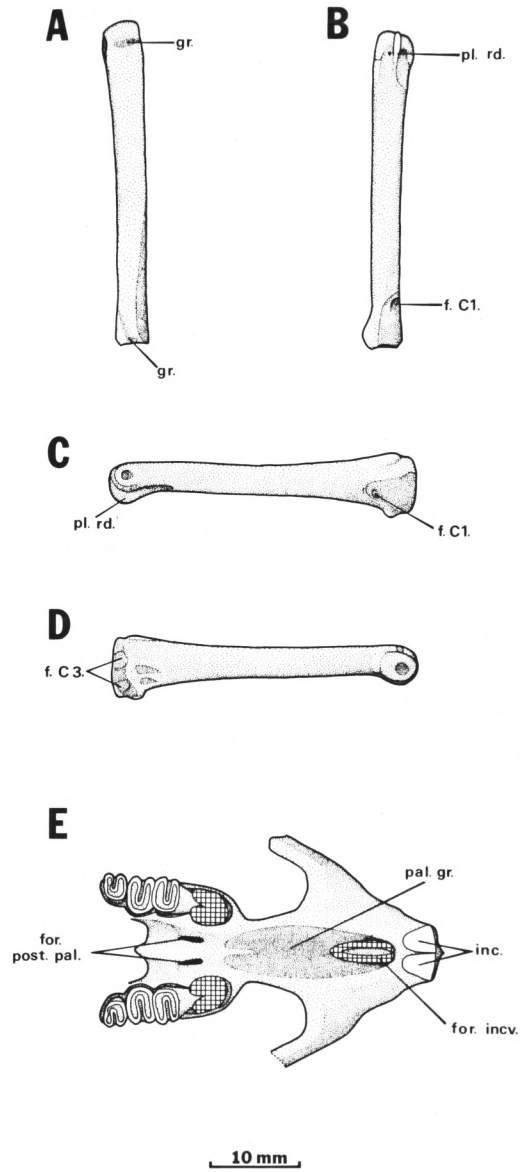

A
gr.
gr.
B
pl. rd.
f. C1.
C
pl. rd.
f. C1.
D
f. C3.
E
pal. gr.
for.
post. pal.
inc.
for. incv.
10 mm

Figure 7.1 : A proposed phylogeny of the named taxa within the Family Pedetidae.

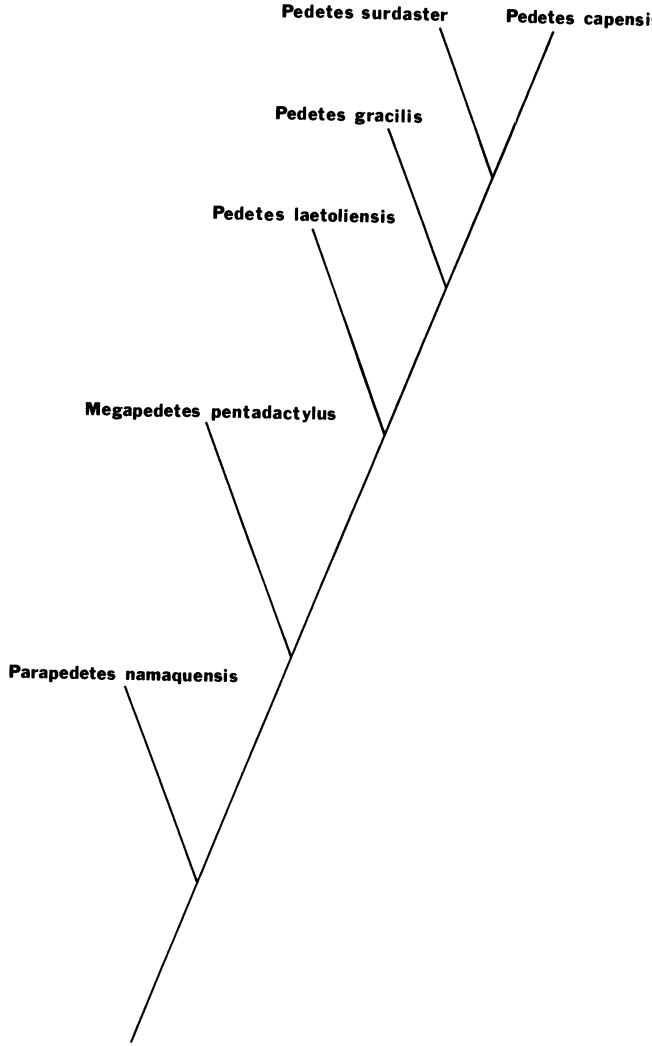

Pedetes surdaster
Pedetes capensis
Pedetes gracilis
Pedetes laetoliensis
Megapedetes pentadactylus
Parapedetes namaquensis

Figure 8.1 : Pedetes surdaster. Jaw musculature.

A) Lateral view of the principal superficial muscles.

B) Main force vectors of the principal muscles: in clockwise order these are m. temporalis, m. masseter lateralis, m. masseter medialis and m. masseter superficialis.

C) Lateral view of the principal deep muscles.

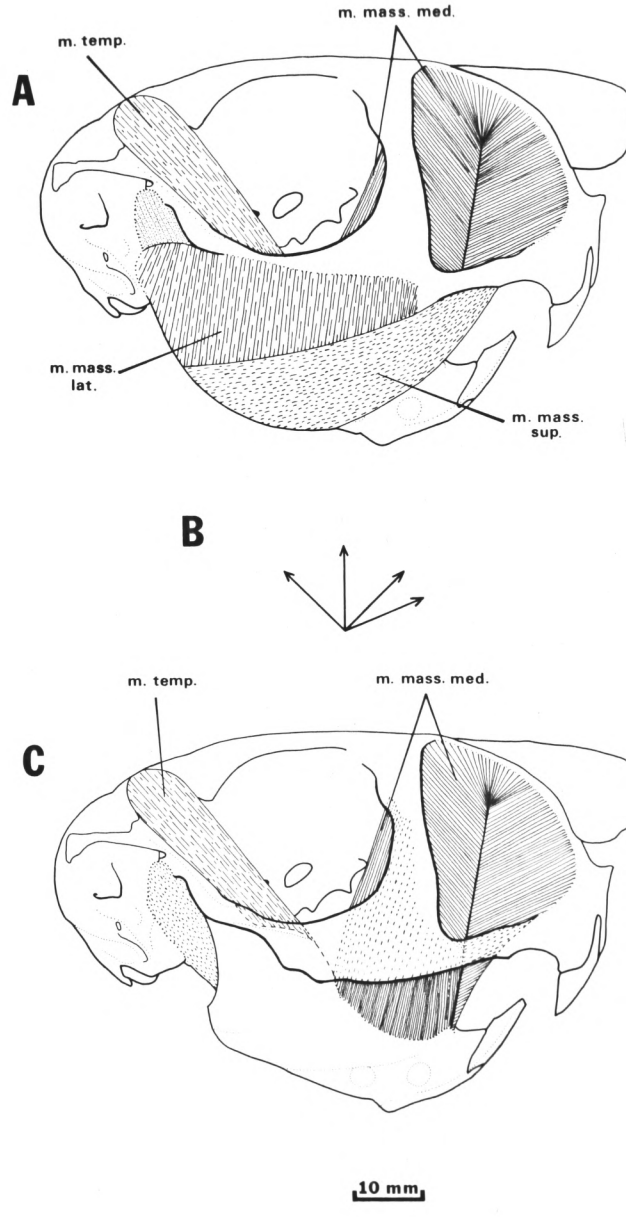

A
m. temp.
m. mass. med.
m. mass.
lat.
m. mass.
sup.
B
C
m. temp.
m. mass. med.
10 mm

Figure 8.2 : Parapedetes namaquensis. Jaw musculature.

A) Lateral view of the principal superficial muscles.

B) Main force vectors of the principal muscles: in clockwise order these are m. temporalis, m. masseter lateralis, m. masseter medialis and m. masseter superficialis.

C) Lateral view of the principal deep muscles.

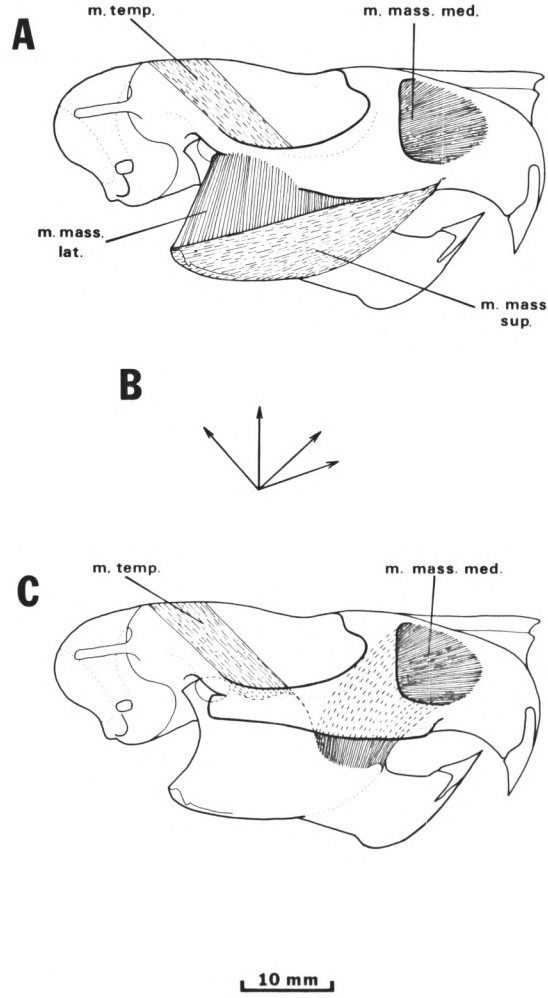

A
m. temp.
m. mass. med.
m. mass.
lat.
m. mass.
sup.
B
C
m. temp.
m. mass. med.
10 mm

Plate 1 : Pedetes surdaster. Cranium.

Profile view of specimen OUM13571.



Plate 2 : Pedetes surdaster. Cranium.

Internal aspect of specimen OUM13561.



Plate 3 : Megapedetes pentadactylus. Cranium.

Profile of the holotype specimen, BM(NH) M21571.



Plate 4 : Megapedetes pentadactylus. Pes.

Dorsal view of left pes in the holotype specimen, BM(NH) M21580.


M 21580

Plate 5 : Parapedetes namaquensis. 1926X15.

View of the specimen after the further preparation carried out in 1979.

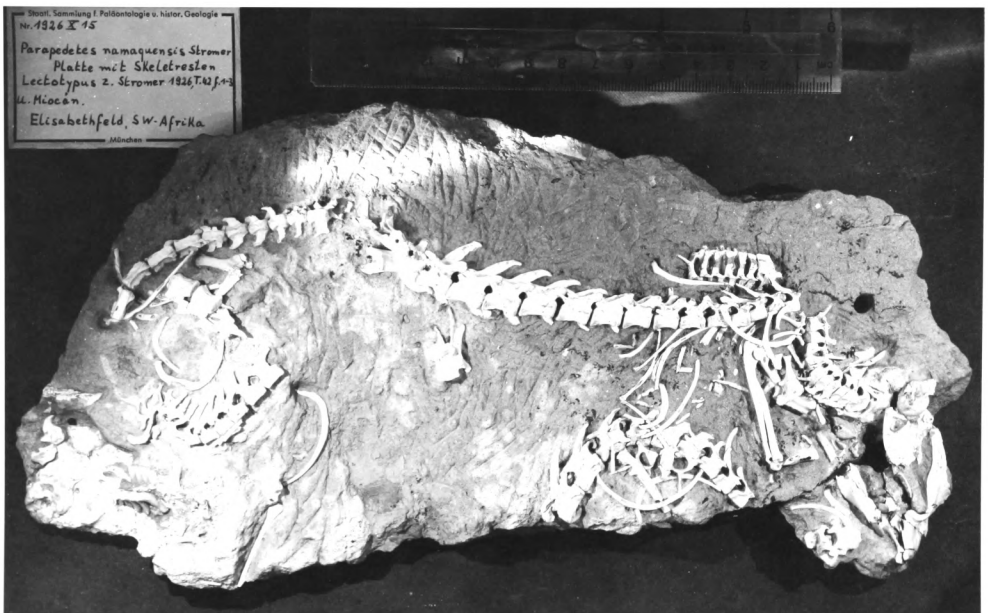

Staatl. Sammlung f. Paläontologie u. histor. Geologie
Nr. 1926 X 15
Parapedetes namaquensis Stromer
Platte mit Skeletresten
Lectotypus z. Stromer 1926, T. 42 f. 1-2
u. Miocän.
Elisabethfeld, SW-Afrika
München

Plate 6 : Parapedetes namaquensis. 1926X510.

View of the specimen after the further preparation carried out in 1979.



Plate 7 : Pedetes laetoliensis. Skull.

Profile view of the holotype specimen, Laet.'79 5514.



APPENDIX I

Institutions visited and the taxa held at each.

During the course of this study the following Museums and Institutes were visited. The list below is arranged by countries and gives the name of each institution and the town in which it is found. The abbreviation given is, in general, primarily used as a prefix for specimen numbers but in some cases has come to be used in other circumstances.

England:

O.U.M.	Oxford University Museum, Oxford.
BM(NH)	British Museum (Natural History), London.

Germany:

	Universitäts-Institut und Staatsammlung für Paläontologie und Historische Geologie, Munich.

Kenya:

K.N.M.	National Museums of Kenya, Nairobi.
TILLMIAP	The International Louis Leakey Memorial Institute for African Prehistory, Nairobi. (Specimen numbers are still prefixed by KNM).

Tanzania:

Olduvai Gorge Base Camp, Olduvai Gorge. (There is no abbreviation; all specimens are identified by their number in the relevant field catalogue.)

South Africa:

KM	Kaffrarian Museum, King William's Town.
AM	Albany Museum, Grahamstown.
R.U.	Rhodes University, Grahamstown.
SAM	South African Museum, Cape Town.
NM	Nasionale Museum, Bloemfontein.
B.P.I.	Bernard Price Institute for Palaeontological Research, Johannesburg.
Za	Medical School Collection, University of the Witwatersrand, Johannesburg.
TM	Transvaal Museum, Pretoria.

The following museum was not visited but the specimens that it possesses were examined while they were on loan at the Albany Museum.

PEM	Port Elizabeth Museum, Port Elizabeth.

The species held at each of the above museums are given below. In the case of fossils the sites from which they come are given in parentheses.

O.U.M. Pedetes surdaster

BM(NH)	Pedetes surdaster ; Pedetes capensis ; Pedetes laetoliensis (Laetoli ?) ; Pedetes c.f. surdaster (Olduvai Gorge) ; Megapedetes pentadactylus (Rusinga, Songhor)
Munich	Pedetes capensis ; Parapedetes namaquensis (Elisabethfeld)
K.N.M.	Pedetes surdaster
TILLMIAP	Pedetes surdaster ; Megapedetes pentadactylus (Rusinga, Songhor, Fort Ternan, Legetet, Mfwangano) ; Gen. et sp. indet. (Rusinga, Fort Ternan, Maboko) ; Pedetes c.f. surdaster (Olduvai Gorge) ; Pedetes laetoliensis (Laetoli)
Olduvai Gorge	Pedetes laetoliensis (Laetoli) ; Pedetes c.f. surdaster (Laetoli)
KM	Pedetes capensis
AM	Pedetes capensis ; Pedetes gracilis (Taung)
R.U.	Pedetes capensis
SAM	Pedetes capensis ; c.f. Parapedetes namaquensis (Elisabethfeld) ; Megapedetes c.f. pentadactylus (Arrisdrift) ; Pedetes hagenstadi (Floris Bad)
NM	Pedetes capensis
B.P.I.	Pedetes capensis
Za	Pedetes capensis

TM Pedetes capensis

PEM Pedetes capensis

The fossil material is also listed by sites in Table 1.I

APPENDIX II

Catalogue of the material of the living species of the genus Pedetes examined for this study.

1) Pedetes surdaster :

a) Post-cranial skeletons :

The post-cranial skeletons were not all complete although most of them were relatively so.

i) In TILLMIAP :- Total = 14

OM5347	OM5348	OM5350	OM5351
OM5354 (Juv)	OM5355	OM5356	OM5357
OM5358	OM5359	OM5360	OM5449
	OM5511	OM4251	

ii) In the Oxford University Museum :- Total = 13

OUM 13548	OUM 13549	OUM 13550 (Juv)	OUM 13551
OUM 13552 (Juv)	OUM 13553	OUM 13554	OUM 13555
OUM 13556	OUM 13557	OUM 13558 (Juv)	OUM 13559
	OUM 13560		

Total post-cranial skeletons examined = 27

Total adult post-cranial skeletons examined = 23

b) Skulls :

i) In the BM(NH) :- Total = 16

BM(NH)2.4.5.5 (TYPE)	BM(NH)1.8.9.107 (Juv)	BM(NH)12.12.14.6 (Juv.)

BM(NH)19.7.15.526	BM(NH)28.12.7.14	BM(NH)28.12.7.15
BM(NH)52.1684	BM(NH)73.1768	BM(NH)73.1769
BM(NH)73.1770	BM(NH)73.1771	BM(NH)73.1772
BM(NH)75.948	BM(NH)75.949 (Juv)	BM(NH)75.950
	BM(NH)77.777	

ii) In TILLMIAP and National Museums of Kenya :-

Total = 16

KNM 3106	KNM 4802	KNM 5024	KNM 5266
KNM 6513	KNM no number	OM5347	OM5348
OM5351	OM5354 (Juv)	OM5355	OM5356
OM5358	OM5360	OM5449	OM4251

iii) In the Oxford University Museum :- Total = 18

OUM 13548	OUM 13549	OUM 13550 (Juv)	OUM 13551
OUM 13552 (Juv)	OUM 13553	OUM 13554	OUM 13561
OUM 13562	OUM 13563	OUM 13564	OUM 13565
OUM 13566	OUM 13567	OUM 13568	OUM 13569
	OUM 13570	OUM 13571	

Total skulls examined = 50

Total adult skulls examined = 44

2) Pedetes capensis :

a) Post-cranial skeletons :

The amount of post-cranial material of P. capensis

that it has proved possible to examine was, unfortunately, very small. It was made up in the following way:

i) In five specimens parts of the cervical vertebral series were still preserved with the cranium. These specimens were:-

BPI/C556 NM.M1549 R.U.88

TM12805 TM18925

ii) There were three complete skeletons, as follows:-

a) In Rhodes University, no number

b) In the South African Museum, no number

c) In Munich: the specimen was from South West Africa and was provided for comparison with the Parapedetes material. Its source is not known and no notes were made on it except to note the state of the cervical vertebrae. There was no reference number.

iii) One partial skeleton was available: this was BPI/C693 which consisted of a left m^3; 2 caudal vertebrae; part of the left pes and part of the right pes.

b) Skulls :

i) In the Kaffrarian Museum :- Total = 101

KM10021	KM10022 (Juv)	KM10023	KM10024
KM10025	KM10026	KM10027	KM10028
KM10029	KM10031 (Juv)	KM10032	KM10033
KM10034 (Juv)	KM10035	KM10037	KM10038
KM10039	KM10040	KM10041	KM10042 (Juv)

KM10043 (Juv)	KM10044	KM10045	KM10046
KM10047	KM10048	KM10049	KM10050 (Juv)
KM10051	KM10052	KM10053	KM10054
KM10055	KM10056	KM10057	KM10058
KM10059	KM10060	KM10061 (Juv)	KM10062 (Juv)
KM10063	KM10064 (Juv)	KM10065	KM10066
KM10067 (Juv)	KM10068	KM10069	KM10070 (Juv)
KM10071	KM10072	KM10073	KM10074
KM10075	KM10076	KM10077 (Juv)	KM10078
KM10079	KM10080	KM10081	KM10082
KM10084	KM10085	KM10086	KM10087
KM10088	KM10089	KM10883	KM10884
KM10885	KM10886 (Juv)	KM11003	KM11446
KM11447	KM11448	KM11449	KM11450 (Juv)
KM11451	KM11452	KM11453	KM11454
KM11458	KM12506	KM12507	KM12508
KM12509	KM17100 (Juv)	KM17101	KM17758
KM17759	KM18679	KM18843	KM18895
KM18987	KM18988	KM19113 (Juv)	KM19185
KM19215	KM19243	KM19318	KM19319
	KM20822		

ii) In the Port Elizabeth Museum :- Total = 2

PEM1443/94 PEM1510/25

iii) In Rhodes University :- Total = 6

R.U.88	R.U.122	R.U.319	R.U.468
	R.U.469	R.U. no number	

iv) In the Albany Museum :- Total = 20

AM.N289	AM.N793	AM.N892	AM570
AM578	AM635	AM636	AM3938
AM5284	AM6581	AM7709	AM7823
AM7823 (sic)	AM7823 (sic)	AM8514	AM.No1.M
AM.No2.M	AM. no number (3 specimens)		

v) In the South African Museum :- Total = 8

SAM.ZM17082	SAM.ZM19156	SAM.ZM33488	SAM.ZM33570
SAM.ZM35662	SAM.ZM35663	SAM.ZM35777	SAM.ZM37428

vi) In the Nasionale Museum :- Total = 36

NM.M675	NM.M1324	NM.M1325	NM.M1432
NM.M1504	NM.M1543	NM.M1547	NM.M1548
NM.M1549	NM.M1617	NM.M1650	NM.M1651
NM.M1654	NM.M1723	NM.M1823	NM.M1824 (Juv)
NM.M1828	NM.M1932	NM.M1933	NM.M1934
NM.M1978	NM.M1979	NM.M1980	NM.M1981
NM.M2074	NM.M2075	NM.M2076	NM.M2370
NM.M2371	NM.M2372	NM.M2607	NM.M2608
NM.M2609	NM.M2610	NM.M2684	NM.M2685

vii) In the Bernard Price Institute for Palaeontological Research :- Total = 8

BPI/C550	BPI/C551	BPI/C552	BPI/C553
BPI/C554	BPI/C555	BPI/C556	BPI/C557

viii) In the Medical School Collection, University of the Witwatersrand :- Total = 4

Za414	Za415	Za417	Za418

ix) In the Transvaal Museum :- Total = 134

TM1a154	TM617	TM1351	TM1475
TM1476 (Juv)	TM1549	TM1739	TM1740
TM2505	TM2506	TM4068	TM4877
TM4879 (Juv)	TM4911	TM4912	TM4913 (Juv)
TM4917	TM5356	TM5357	TM6564
TM6565	TM6566	TM6567 (Juv)	TM6568
TM6570	TM6571	TM6572 (Juv)	TM6573
TM6574	TM6575	TM6576 (Juv)	TM6578
TM6580 (Juv)	TM6581	TM6582	TM6599
TM6749	TM6750	TM6855	TM7588
TM7823	TM7824	TM7825	TM8746 (Juv)
TM9577	TM10195	TM11553	TM11554
TM11576	TM11600 (Juv)	TM12057	TM12606
TM12606 (sic)	TM12607	TM12608	TM12613
TM12614	TM12615	TM12805	TM12812 (Juv)
TM12999 (Juv)	TM13000	TM13001	TM13398
TM14096	TM15318	TM16299	TM16300
TM16301 (Juv)	TM16302	TM16303 (Juv)	TM16787
TM16800	TM16801	TM17056	TM17060
TM17061	TM17596	TM18924	TM18926
TM19587	TM19793	TM19797 (Juv)	TM19948
TM20316	TM20390	TM20513 (Juv)	TM20559 (Juv)
TM20563 (Juv)	TM20575	TM20698	TM20699

TM20755 (Juv)	TM20756	TM20770	TM20771
TM20772	TM20773	TM20804	TM20837
TM20838 (Juv)	TM23312 (Juv)	TM23330	TM23430
TM23505	TM23782	TM24176	TM24799
TM24993	TM25035	TM25206	TM25207
TM25554	TM25659 (Juv)	TM25660 (Juv)	TM26472
TM26496	TM26497	TM26652	TM26676
TM26931 (Juv)	TM27210	TM27249	TM27633
TM27634	TM27646	TM28125	TM28182
TM28184	TM28185	TM28201	TM no number

*TM3785 (TYPE) TM6748 (TYPE) TM8213 (TYPE)

*(The type specimen of Pedetes capensis damarensis, TM3785, should include a skull but in 1978 only the skin could be found so the skull was not examined and this specimen is not, therefore, included in the total.)

x) In the British Museum (Natural History) :- Total = 66

BM(NH)35.9.1.450	BM(NH)35.9.1.451
BM(NH)35.9.1.452	BM(NH)35.9.1.453
BM(NH)35.9.1.454	BM(NH)35.9.1.455
BM(NH)35.9.1.456 (Juv)	BM(NH)35.9.1.457
BM(NH)35.9.1.458	BM(NH)25.12.4.205 (Juv)
BM(NH)25.12.4.206	BM(NH)25.12.4.207
BM(NH)26.12.7.295	BM(NH)26.12.7.296
BM(NH)26.12.7.297	BM(NH)26.12.7.298
BM(NH)26.12.7.299	BM(NH)26.12.7.300
BM(NH)28.9.11.395	BM(NH)28.9.11.396 (Juv)

BM(NH)28.9.11.397
BM(NH)32.9.1.202
BM(NH)33.9.6.16
BM(NH)33.9.6.18
BM(NH)33.9.6.20
BM(NH)25.5.16.6
BM(NH)97.11.5.34
BM(NH)4.3.1.44
BM(NH)4.10.1.54
BM(NH)33.9.6.14
BM(NH)23.5.9.162
BM(NH)23.5.9.164 (Juv)
BM(NH)23.5.9.166
BM(NH)2.9.1.98
BM(NH)3.1.4.57
BM(NH)6.4.3.87
BM(NH)9.3.2.19
BM(NH)1957.3.19.1
BM(NH)65.4181
BM(NH)2.9.1.97
BM(NH)50.11.22.42 (=545b)
BM(NH)545e
BM(NH)7.5.25.11 (TYPE)
BM(NH)32.9.1.201 (Juv)
BM(NH)33.9.6.15
BM(NH)33.9.6.17 (Juv)
BM(NH)33.9.6.19
BM(NH)25.5.16.5
BM(NH)25.5.16.7
BM(NH)97.11.5.85
BM(NH)4.3.1.94
BM(NH)4.12.5.52
BM(NH)23.5.9.161
BM(NH)23.5.9.163
BM(NH)23.5.9.165
BM(NH)23.5.9.167
BM(NH)3.1.4.56 (Juv)
BM(NH)6.4.3.85
BM(NH)6.11.8.129 (Juv)
BM(NH)1903.1.4.64
BM(NH)65.2908
BM(NH)68.266
BM(NH)43.7.22.9 (=545a) (Juv)
BM(NH)545d
BM(NH)19.12.19.1 (TYPE)
BM(NH)6.4.3.86 (TYPE)

Total number of skulls examined = 385

Total number of adult skulls examined = 336

Not all of the skulls examined were complete so that most measurements were derived from less than this full sample.

The totals do not include specimens represented only by skins. These specimens are not listed with the exception of the type specimen of P. capensis damarensis (see above).

APPENDIX III

Catalogue of the material of Megapedetes pentadactylus.

Holotype : BM(NH) M21571 - BM(NH) M21598 (From Songhor)

Main paratype : BM(NH) M21599 - BM(NH) M21619 (From Wanyama, Rusinga Island, Lake Victoria, Kenya)

LG.29/5 : From Locality 29 at Legetet in Kenya. When this specimen was brought into TILLMIAP it was described verbally to Dr. Andrew Hill as a primate leg. It was recognised as Megapedetes by Dr. Alan Walker in 1978. In the field catalogue this number is described as "Limnopithecus : right leg, complete" and is the only complete primate leg mentioned. An examination of specimens in TILLMIAP showed that there was no Limnopithecus leg amongst the specimens of this genus. Consequently the number LG.29/5 has been assigned to this Megapedetes leg which consists of most of the right leg, part of the tail and some associated fragments.

Cranium:

BM(NH) M21571	Cranium
BM(NH) M21604	Incomplete cranium & basioccipital fragment
BM(NH) M21605	Maxilla fragment
KNM-Ru 4025	Right premaxilla fragment with incisor root
KNM-Ru 4027	Left premaxilla fragment with incisor root
KNM-Ru 4030	Left premaxilla fragment with incisor root

KNM-Ru 4031	Right premaxilla fragment with incisor
KNM-Ru 4057B	Premaxilla fragment with one incisor
KNM-Ru 4057C	Continuation of KNM-Ru 4057B
KNM-Ru 4068	Left maxilla with pm^4 - m^1
KNM-Ru 4069	Right maxilla with pm^4 - m^2
KNM-Ru 4074A	Left maxilla with pm^4 - m^1
KNM-Ru 4074B	Left premaxilla fragment with incisor
KNM-Ru 4074D	Left premaxilla fragment
KNM-Ru 4074E	Right premaxilla & nasal fragment
KNM-Ru 4077	Premaxilla fragment with incisor
KNM-So 1496	Premaxilla with roots of incisor
KNM-So 1502	Right premaxilla fragment with incisor
Sgr. 258'48	Right auditory bulla

Mandible:

BM(NH) M16355	Right mandibular frag. with incisor
BM(NH) M21572	Left mandibular ramus
BM(NH) M21573	Right mandibular ramus
BM(NH) M21607	Left mandibular ramus
BM(NH) M21608	Right mandibular ramus & fragment
KNM-Ru 4023	Right mandibular ramus with pm_4 - m_3
KNM-Ru 4024	Left mandibular ramus with pm_4 - m_3
KNM-Ru 4050	Symphysis with 2 incisors
KNM-Ru 4057D, E	2 fragments of left ramus with incisor
KNM-Ru 4058	Left mandibular ramus with incisor
KNM-Ru 4067	Right mandibular ramus with pm_4 - m_1
KNM-So 1499	Left mandibular ramus with m_1 - m_2
KNM-So 1500	Right mandibular ramus with m_1 - m_2

KNM-So 1507 Right mandibular ramus without teeth

KNM-So 3909B, C, D Mandibular rami from juveniles.

Incisor fragments:

Upper:

KNM-Ru 4028 ; KNM-Ru 4041 ; KNM-Ru 4044 ; KNM-Ru 4047 ;
KNM-Ru 4054 ; KNM-Ru 4055 ; KNM-Ru 4059 ; KNM-Ru 4060 ;
KNM-Ru 4513 ; KNM-Ru 4518 ; KNM-So 1980 ; KNM-So 1984 ;
KNM-So 1986 ; KNM-So 1987 ; KNM-So 1988 ; KNM-So no number ;
2 fragments with no data.

Lower:

KNM-Ru 4032 ; KNM-Ru 4034 ; KNM-Ru 4048 ; KNM-Ru 4057F ;
KNM-Ru 4511 ; KNM-Ru 4514 ; KNM-Ru 4515 ; KNM-Ru 4516 ;
R.1 ; KNM-So 1982.

Indeterminate:

KNM-Ru 4033 ; KNM-Ru 4035 ; KNM-Ru 4036 ; KNM-Ru 4037 ;
KNM-Ru 4038 ; KNM-Ru 4039 ; KNM-Ru 4040 ; KNM-Ru 4042 ;
KNM-Ru 4043 ; KNM-Ru 4046 ; KNM-Ru 4049 ; KNM-Ru 4052 ;
KNM-Ru 4053 ; KNM-Ru 4074F; KNM-Ru 4084 ; KNM-Ru 4512 ;
KNM-Ru 4517 ; R.753'49 ; KNM-So 1498 ; KNM-So 1508 ;
KNM-So 1983 ; KNM-LG 711a ; KNM-MW 210 ; KNM-MW 211
No site data :- 1234 No.2 ; 1228 No.4 ; No.8 (2 specimens)
No data :- 1 specimen.

Cheekteeth:

BM(NH) M21606 ; KNM-Ru 4026 ; KNM-Ru 4061 ; KNM-Ru 4062;

KNM-Ru 4063 ; KNM-Ru 4064 ; KNM-Ru 4065 ; KNM-Ru 4066 ;
KNM-Ru 4070 ; KNM-Ru 4071 ; KNM-Ru 4072 ; KNM-Ru 4075 ;
KNM-Ru 4076 ; KNM-Ru 4078 ; KNM-Ru 4079 ; KNM-Ru 4080 ;
KNM-Ru 4081 ; KNM-Ru 4082 ; KNM-Ru 4083 ; KNM-So 1497 ;
KNM-So 1503 ; KNM-So 1504 ; KNM-So 1505 ; KNM-So 1985 ;
KNM-FT 3630

Vertebral column:

BM(NH) M21574	Axis vertebra
BM(NH) M21581	Incomplete atlas vertebra
BM(NH) M21582	Cervical vertebrae 3 - 6
BM(NH) M21583	8 thoracic vertebrae
BM(NH) M21584	7 incomplete lumbar vertebrae
BM(NH) M21585	Portion of sacrum
BM(NH) M21586	7 caudal vertebrae
BM(NH) M21599	Atlas vertebra
BM(NH) M21609	Incomplete axis vertebra
BM(NH) M21610	Cervical vertebrae 4 - 7 & thoracic 1
LG.29/5	Thoracic vertebra 9 or 10 ; 11 caudal vertebrae

Rib cage:

BM(NH) M21611	Left rib 1 & fragment of right rib 1
BM(NH)	Fragment of manubrium sterni (amongst the fragments associated with the holotype).

Clavicle:

BM(NH) M21601	Right clavicle

Scapula:

BM(NH) M21587	Fragments of scapulae
BM(NH) M21600	Left scapula
BM(NH) M21612	Right scapula

Humerus:

BM(NH) M21575	Right humerus
BM(NH) M21588	Left humerus
BM(NH) M21613	Right humerus
BM(NH) M21614	Left humerus
Sgr.3012'66	Distal right humerus (Megapedetes ?)

Radius:

BM(NH) M21589	Fragments of right radius
BM(NH) M21602	Left radius
BM(NH) M21615	Right radius
LG.29/5	Proximal right radius

Ulna:

BM(NH) M21590	Fragment of right ulna
BM(NH) M21603	Left ulna
BM(NH) M21615	Right ulna

Manus:

BM(NH) M21576	Part of right manus

BM(NH) M21591	Left Mc.III & left Mc.IV
BM(NH) M21592	Ph.I : digit 3

Innominate:

BM(NH) M21577	Left innominate & fragment
BM(NH) M21593	Right acetabulum

Femur:

BM(NH) M21578	Right femur
BM(NH) M21594	Left femur
BM(NH) M21616	Proximal & distal right femur
LG.29/5	Right femur

Patella:

BM(NH) M21595	Patella

Tibia:

BM(NH) M21579	Proximal right tibia
BM(NH) M21580	Distal left tibia
BM(NH) M21596	Proximal left tibia
BM(NH) M21597	Distal right tibia
Sgr. 248'48	Distal right tibia
LG.29/5	Right tibia

Fibula:

BM(NH) M21579	Proximal right fibula

BM(NH) M21580	Distal left fibula
LG.29/5	Distal left & right fibulae

Pes:

BM(NH) M21580	Left pes except for some distal phalanges
BM(NH) M21595	Metatarsal I
BM(NH) M21598	Right calcaneum, cuboid, C3, C2, C1, Mt.IV, Mt.V
BM(NH) M21617	Right astragalus & calcaneum
BM(NH) M21618	Right Mt.I, Mt.II, Mt.III, Mt.IV, Mt.V
BM(NH) M21619	Left Mt.I, Mt.II, Mt.III, Mt.IV, Mt.V
KNM-Ru 4045	Left astragalus
KNM-Ru 4051	Right astragalus
KNM-Ru 4057A	Proximal left Mt.II, Mt.III, Mt.IV, Mt.V
Ru 192'50	Distal right Mt.IV
KNM-So 1914	Distal left Mt.I (Megapedetes ?)
KNM-So 1981	Ph.II : digit 2
Sgr. 259'49	Distal left Mt.II & Mt.III
Sgr. 265'49	Distal Ph.I : left digit 2
Sgr. 266'49	Distal right Mt.V
LG.29/5	Right astragalus, calcaneum, navicular, cuboid, C3, C2, distal C1, Mt.I, Mt.II, Mt.III, Mt.IV, Mt.V, Ph.I (digits 1 - 5), Ph.II (digits 2 - 4)
LG.29/5	Left C3, Mt.I, Mt.II, Mt.III, Mt.IV, Ph.I (digits 1 - 5), Ph.II (digits 2 & 3), Ph.III (digit 1)

Associated with Sgr. 259'49 Distal right Mt.IV

No data Ph.I : left digit 5

Assorted fragments, including sesamoid bones, are found associated with the holotype, the main paratype and LG.29/5.

The following material has been described as Megapedetes in the catalogue of TILLMIAP but has been misidentified and does not belong to this genus.

KNM-Ru 4029	Premaxilla fragment with incisor root
KNM-Ru 4056	Distal tibia
KNM-Ru 4073	Mandibular fragment with incisor
KNM-Ru 4074C	
KNM-So 1501	Mandibular fragment with incisor

APPENDIX IV

Catalogue of the material of Parapedetes namaquensis.

In the Bavarian State Palaeontological Collections there are five numbered specimens belonging to this species. This is all that remains of the material collected by Erich Kaiser and described in Stromer (1923 & 1926). Some of this material is quite badly damaged; most of it is still half embedded in blocks. It is divided up as follows:

1926X15 :- figured in Stromer (1926 : Plate 42, Fig. 1). It has been labelled as the lectotype and corresponds to Specimen 1 (Stromer, 1926). Further preparation was carried out on this block in 1979 after work on 1926X510 had proved so successful. 1926X15 contains the following material:

a Very badly damaged cranium with parts of the left and right mandibular rami (the right reattached in 1979); 4 isolated cheekteeth possibly belonging with this skull; an an articulated backbone consisting of Ce1 - 7, Th1 - 4, Th6 - 12, Lu1 - 7, Sa1 - 3, Ca1 - 12; an articulated left humerus, radius and ulna; a distal right humerus; a fragment of right scapula; a fragment of manubrium sterni; rib fragments; a fragment of right ilium. This individual has been designated the lectotype (see Chapter 4).

b Very badly damaged cranium with some pieces of bone at the

posterior end — assumed to be the remains of the anterior cervical vertebrae.

c Axis - Th1, articulated.

d Th8 - Lu4, articulated; 3 unarticulated thoracic vertebrae; rib fragments; proximal right ulna; possibly a further 3 thoracic vertebrae (articulated) from the anterior end of the series.

e Isolated Lu3.

f Th12 - Lu2, articulated; possibly a fragment of right innominate but this may equally well belong with the lectotype.

g Isolated Ca3.

h Th1 - 11; rib fragments. This may be from the same individual as 1926X15f

1926X501 :- Complete but crushed and distorted cranium; part of Stromer's Specimen 2.

1926X502 :- Fragment of left mandibular ramus; part of Stromer's Specimen 2.

1926X510 :- Stromer's Specimen 8. It contains assorted bones, mainly post-cranials, including 4 hind-feet. The material cannot be assorted into individual

animals but has to be left as individual pieces. The following material was noted:

A Left pes: complete Mt.IV; an almost complete Mt.V; distal Mt.II & Mt.III; all the phalanges of digits 2 - 5. All the bones are articulated.

B Left pes: complete Mt.II - Mt.IV; Ph.I, digits 3 & 4; Ph.II, digit 3; C1. All bones articulated. C3 pushed proximally out of position; possibly Mt.I.

C Right leg: distal tibia & fibula; tarsus; metatarsus except Mt.V; Ph.I, digits 2 & 3. Articulated but metatarsus is twisted by about 90° at the tarsal-metatarsal junction. Tarsus exposed in 1979, badly damaged, only parts of astragalus, calcaneum, cuboid, navicular & C3 are visible. The bone surface is quite badly damaged making detail difficult to see.

D Right pes: distal Mt.II - Mt.V; Ph.I, digits 3 - 5; Ph.II, digits 3 - 5; Ph.III, digits 4 & 5. All articulated.

E Isolated left calcaneum.

F Associated with 1926X510B there are 2 Ph.II; Ph.I - Ph.III. It is not known from what digits these come.

G 3 fragments possibly forming part of digit 4.

H Axis - Ce6, damaged and articulated.

I Th8 - Lu3, damaged and articulated

J Ca1 - Ca2, articulated.

K Ca3 - Ca10, articulated. There is no direct evidence that this is from the same individual as 1926X510J; the two pieces do not lie together.

L Rib fragments.

M Manubrium sterni.

N Left clavicle.

O Proximal right ulna.

P Fragment of right radius.

Q Ph.I, digit ?, manus.

R Right femur.

S Right patella.

T Distal tibia; on lower surface of block and not prepared.

U Left mandibular fragment with pm_4 - m_3.

1926X511 :- Right tibia and part of fibula. This is Stromer's Specimen 24.

APPENDIX V

Catalogue of the material of *Pedetes laetoliensis*.

Holotype : Laet.'79 5514

Material of *Pedetes laetoliensis* is mainly housed at Olduvai Gorge but other material is housed at TILLMIAP and the BM(NH). The material described by Dietrich (1942) and assigned to *Pedetes surdaster* subsp. has not been examined but probably belongs to this species.

Partial skeletons:

Laet.'75 446	Fragments of single individual
Laet.'75 460	Partial skeleton
Laet.'75 1673	Skull, tibia & vertebral fragments
Laet.'75 2932	Assorted pieces of skeleton inc. right tibia
Laet.'76 3864	Fragments of cranium & mandible
Laet.'79 5514	Skull & partial skeleton
LIT'59 125	Fragments of a skeleton
Unnumbered	Fragments of a skeleton

Cranium:

Laet.'75 313	Left maxilla frag. with pm^4 - m^2
Laet.'75 406	Maxilla frag. with left & right pm^4 - m^3
Laet.'75 1797	Left premaxilla fragment with incisor
Laet.'75 1843	Premaxilla fragment with incisors

Laet.'75 1908	Maxilla with right pm^4 - m^3 & left pm^4 - m^2
Laet.'75 2108	Premaxilla fragment with incisors
Laet.'75 2288	Right premaxilla fragment with incisor
Laet.'75 2674	Premaxilla fragment with incisors
Laet.'75 2921	Left maxilla fragment with pm^4 - m^2
Laet.'75 3505	Right maxilla fragment with pm^4 - m^1
Laet.'76 3966	Left maxilla fragment with pm^4 - m^3
LIT'59 370	Left maxilla fragment with pm^4
LIT'59 487	3 fragments of palate and maxillae

Mandible:

Laet.'75 305	Symphysis with left & right pm_4 - m_2
Laet.'75 308	Part of Laet.'75 305
Laet.'75 459	Right mandibular frag. with pm_4 - m_3 & incisor
Laet.'75 569	Left mandibular frag. with pm_4 - m_3
Laet.'75 1219	Left mandibular frag. with pm_4 - m_2
Laet.'75 1262	Left mandibular frag. with pm_4 - m_3
Laet.'75 1342	Left mandibular frag. with m_1 - m_3
Laet.'75 1976	Left mandibular frag. with pm_4 - m_2
Laet.'75 2085	Right mandibular frag. with pm_4 - m_2
Laet.'75 3231	Left mandibular frag. with pm_4 - m_1
Laet.'75 3232	Right mandibular frag. with pm_4 - m_2
Laet.'75 3487	Left mandibular frag. with pm_4 - m_2
Laet.'76 3603	Right mandibular frag. with pm_4 - m_3 & incisor
Laet.'76 3612	Left mandibular frag. with pm_4 - m_2
Laet.'76 3759	Right mandibular frag. with pm_4 - m_3

Incisor fragments:

Laet.'74 36B ; Laet.'75 607 ; Laet.'75 3489 ; LIT'59 406

Cheekteeth:

Upper:-

a) pm^4 Laet.'75 1798 ; Laet.'76 3598 ; Laet.'76 3926

b) m^1 Laet.'75 2501 ; Laet.'75 2505 ; Laet.'75 2986 ; Laet.'75 2993 ; Laet.'75 3278 ; Laet.'75 3502 ; Laet.'76 3591

c) m^2 Laet.'75 1844 (2) ; Laet.'75 3019 (?) ; Laet.'75 3233 ; Laet.'75 3247 ; LIT'59 407 (?)

d) m^3 Laet.'75 2287 ; Laet.'75 3502 ; LIT'59 408 (?) ; LIT'59 409 (?)

Lower:-

a) pm_4 Laet.'75 1510 ; Laet.'75 2222 ; Laet.'76 3593

b) m_1 Laet.'75 1698 ; Laet.'75 1798 ; Laet.'75 2378 (?) ; Laet.'75 2630 ; Laet.'75 2631 ; Laet.'75 2992 ; Laet.'75 3488 ; Laet.'76 3592 ; LIT'59 411

c) m_2 Laet.'75 1940 (?) ; Laet.'75 2128 ; Laet.'76 3590 ; Laet.'76 3597 ; Laet.'76 3599 ; LIT'59 410

d) m_3 Laet.'75 859 ; Laet.'75 3490 ; Laet.'75 3495 ; Laet.'76 3514

Indeterminate:-

Laet.'75 2987 ; Laet.'75 2504

Post-cranials:

BM(NH) M16519	Astragalus & calcaneum
Laet.'75 380	Ph.I : digit 3 : pes
Laet.'75 452A	Proximal & distal left tibia
Laet.'75 546	2 fragments of right innominate, right astragalus & right metatarsal II
Laet.'75 864	Distal right femur
Laet.'75 1345	Ph.I : digit 3 : pes
Laet.'75 1623	Left astragalus
Laet.'75 1697	Right calcaneum
Laet.'75 1745D	Right navicular
Laet.'75 1943	Fragment of right innominate
Laet.'75 2079	Ph.I : digit 3 : pes
Laet.'75 2192	Distal left tibia with astragalus & distal calcaneum
Laet.'75 2303	Proximal left femur
Laet.'75 2311	Proximal left femur
Laet.'75 2414	Proximal right metatarsal II & metatarsal III
Laet.'75 2421	Distal right femur
Laet.'75 2422	Distal left femur
Laet.'75 2423	Distal left femur
Laet.'75 2570	Body of right astragalus
Laet.'75 2717	Distal left tibia
Laet.'75 3167	Right calcaneum
Laet.'75 3327	Right astragalus
Laet.'76 3803	Proximal left tibia (connects with '75 2717)
Laet.'76 3804	Distal left tibia with body of astragalus

Laet.'76 3805	Distal left tibia
Laet.'76 3806	Distal left tibia
Laet.'76 3809	Fragment of proximal right tibia
Laet.'76 3878	Left astragalus & calcaneum
Laet.'76 4003	Fragment of proximal left femur
Laet.'76 4094	Ph.I : left digit 4 ? : pes ? ; Ph.II : digit 3 ? : pes ?
LIT'59 211	Right calcaneum
LIT'59 492	Proximal left femur
LIT'59 493	Proximal right femur in 2 parts
LIT'59 495	Distal left femur
LIT'59 496	Distal left femur
LIT'59 498	Distal left femur
LIT'59 501	Distal right femur
LIT'59 504	Distal left tibia
LIT'59 505	Distal left tibia
LIT'59 506	Distal left tibia
LIT'59 519	Left calcaneum

Unnumbered specimens:

Right pm^4

Left mandibular fragment

2 molars (one is a right m_3)

8 caudal vertebrae

Distal left humerus

Fragment of left innominate with femur head

Fragment of left innominate

Fragment of left innominate

Fragment of right innominate

2 distal right femora

Distal left femur

Fragment of proximal left femur

2 proximal right tibiae

Proximal left tibia

Body of right astragalus

Fragment of astragalus

Right calcaneum

Right tuber calcis

Part of left tarsus and metatarsus

Proximal left metatarsal III

Left metatarsal II

Proximal left metatarsal III

Ph.I : right digit 2 : pes

Astragalus & calcaneum

APPENDIX VI

Catalogue of fragmentary pedetid material.

c.f. Parapedetes namaquensis.

SAM-PQ 2121 :

Left mandibular ramus	3 incisor fragments
10 isolated cheekteeth	Fragment of thoracic vertebra
5 lumbar vertebra fragments	2 caudal vertebra fragments
Fragment of haemal arch	Centrum of caudal 3
Caudal 7	12 rib fragments
Left clavicle	Scapular end of right clavicle
Distal right humerus	Proximal right humerus
Proximal right ulna	Proximal right radius
Left radius	Left scapho-lunar
Left centrale	Right metacarpal I
Phalanx I (Manus)	Left metacarpal V (destroyed)
Phalanx III (Manus)	Distal left femur
Patella	Left calcaneum
Right navicular	Proximal right metatarsal II
Proximal metatarsal (Mt.I ?)	Phalanx I : Left digit 5 (?)
Assorted fragments	

Megapedetes c.f. pentadactylus.

SAM-PQ-AD 1745 Fragment of left mandibular ramus

SAM-PQ-AD 1746	Isolated molar crown
SAM-PQ-AD 1747	Isolated molar

Gen. et sp. indet.

Ru 514'47	Proximal right Mt.III & Mt.IV, articulated
Ru 362'52	Incisor fragment with bone fragment
Ru 700'56	2 right calcanea
Ru 741'59	Left premaxilla fragment with incisor
KNM-Mb 429	Molar
KNM-Mb 431	Molar fragment
Maboko, no number	Right Mt.II
FT/67	Phalanx I

Pedetes c.f. surdaster.

Olduvai Gorge :	
BM(NH) no number	Left mandibular fragment with pm_4 - m_2
067/1343	Rt.m^2 ; Lt.m^2 ; Lt.m^3 ; Lt.pm^4
067/1345	Lt.m^1
067/1346	Rt.m^3
067/1567	Rt.pm^4 ; Lt.m_3 ; Lt.m_2
067/1975	Rt.m^2
067/517	Rt.pm^4 ; Rt.pm_4 ; Rt.m^3
068/6547	Left calcaneum
068/6550	Left navicular
No number	2 molars

Laetoli :

Laet.'75 1310	Left mandibular fragment with pm_4 - m_3
Laet.'76 3907	Body of left astragalus
Laet.'76 3908	Right navicular

Pedetes hagenstadi.

SAM-PQG 3292	Lt.pm^4 ; Lt.m^2 ; Lt.m^1 or Rt.m_1 ; Rt.pm_4 ; Rt.m_3

Pedetes gracilis.

AM4194C (TYPE)	Partial cranium