

ANCIENT MONUMENTS LABORATORY

DoE

Computer Based Osteometry

Data Capture User Manual (1)

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THE ANCIENT MONUMENTS LABORATORY ANIMAL BONE RECORDING SYSTEM
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NOTES FOR THE USER (MICROCOMPUTER VERSION)
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FORMAT
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THIS IS AN EXAMPLE OF THE RECORD TYPE

COWHUM	THE SP. & ANATOMY IDENTIFIER
9934	THE ARCHAEOLOGICAL IDENTIFIER
N	THE MEASUREMENTS (NONE)
\$01L	HANDEDNESS (LEFT)
\$02D5	FRAG. DESCRIPTION (DISTAL 50%)
\$05DCL	BUTCHERY DES. (FIRST TIME)
\$05DEK	BUTCHERY DES. (SECOND TIME)
\$09DF	AGE DESCRIPTION
%	END OF RECORD MARKER

THIS IS ONE OF THE MORE USUAL RECORD "TYPES".

ANOTHER TYPE MIGHT BE

+23+SHERIS	HERE A MULTIPLIER OF 23 IS INDICATED
232436	
N	
\$01F	
\$023	
%	

THIS "TYPE OF RECORD IS USEFUL WHEN MANY FRAGMENTS OF THE SAME RECORD "TYPE" ARE TO BE RECORDED.

ANOTHER EXAMPLE MIGHT BE

DOGSCAP	
234	
05 05 2345 05 2555 05 2345 05	
\$01R	
\$02D7	
%	

IN THIS CASE THERE ARE MEASUREMENTS AND THEY ARE SET OUT AS INDICATED IN THE WRITTEN MANUAL.

NOTES ON THE MEASUREMENTS

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THE MEASUREMENTS ARE DUAL STANDARD. THEY ARE INTENDED TO FIT IN WITH BOTH THE CONTINENTAL WORK AND THAT WHICH HAS ALREADY TAKEN PLACE IN THE ANCIENT MONUMENTS LABORATORY DOE AND AT THE DOE PROJECTS AT SOUTHAMPTON AND DURHAM UNIVERSITIES. REFERENCE TO THEM IN JONES 1974 AND VON DEN DRIESCH 1976.

SPECIMEN NUMBERS AND FREE DESCRIPTIONS

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THIS IS HELD IN DESCRIPTIVE FIELD 12(\$12)

A FREE LITERAL DESCRIPTION MAY BE MADE ON AS MANY LINES AS NEEDED PROVIDED THAT EACH NEW LINE IS STARTED BY \$12

IN THE CASE OF A SPECIMEN NUMBER, IF THE INTENTION IS TO USE THIS IN ANY OF THE POST RECORDING COMPUTING IT IS ESSENTIAL THAT A.M.L. BE CONSULTED BEFORE ANY ATTEMPT IS MADE TO USE IT.

THE DESCRIPTIVE FIELDS GENERALLY

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IN ALL CASES DESCRIPTIVE FIELDS MAY BE REPEATED. HOWEVER, EACH NEW LINE OF DESCRIPTION MUST BE STARTED BY THE TAG NUMBER. ALSO REMEMBER THAT THE MORE LONG WINDED THE DESCRIPTIONS THE MORE TIME CONSUMING IT WILL BE TO PROCESS THEM, SO KEEP IT SHORT AND TO THE POINT.

ERRORING A RECORD

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THE USE OF THE ERROR BUTTON ON THE "WIV" MACHINES HAS NOT BEEN IMPLEMENTED YET.

IF YOU WISH TO ERROR A RECORD ENTER ANYTHING THAT IS NOT AVAILABLE FOR THAT PART OF THE RECORD EG. AN E IN A MEASUREMENT AREA OR A Q IN THE HANDEDNESS FIELD. IT IS ALSO POSSIBLE TO TYPE MESSAGES IN AT THIS POINT TO REMIND YOURSELF WHY THE RECORD IS WRONG.

REFERENCES

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JONES 1974 COMPUTER BASED OSTEOLOGICAL ARCHAEOZOOLOGY
AML REPORT NUMBER 2333

VON DEN DRIESCH 1976 A GUIDE TO THE MEASUREMENT OF ANIMAL
BONES FROM ARCHAEOLOGICAL SITES
PEABODY MUSEUM BULLETIN 1. HARVARD UNIVERSITY

GETTY 1975 Sisson AND GROSSMAN'S THE ANATOMY OF THE DOMESTIC ANIMALS
(2 VOLS) 5TH. ED W. B. SAUNDERS CO LONDON

ROMER 1970 THE VERTEBRATE BODY. W. B. SAUNDERS CO LONDON

COMMON SPECIES
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SPECIES =====	CODE =====
HORSE	HOR
DONKEY	DON
CATTLE	COW
SHEEP	SHE
GOAT	GOA
SHEEP/GOAT	S+G
PIG	PIG
DOG	DOG
CAT	CAT
DOM. FOWL	FOW
DOM. GOOSE	GGO
RED DEER	RED
FALLOW DEER	FAL
ROE DEER	ROE
RABBIT	RAB
LEPUS SP.	HAR
SMALL ARTIODACTYL	SAR
LARGE ARTIODACTYL	LAR
LARGE MAMMAL	OXO
UNKNOWN MAMMAL	UNH
" BIRD	UNB
" FISH	UNF
" SPECIES	UNX

UNCOMMON SPECIES

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COMMON NAME	LATIN NAME	INPUT CODE
SIX-GILLED SHARK	HEXANCHUS GRISEUS	AAA
BLUE MOUTH	HELICOLENUS DACTYLOPTERUS	AAB
SEVENGILLED SHARK	HEPTRANCHIAS PERLO	AAC
SAND SHARK	ODONTASPIS TAURUS	AAD
PIERCE SHARK	ODONTASPIS FEROX	AAE
SAIL FISH	ISTIOPHORUS ALBICANS	AAF
MAKO	ISURUS OXYRINCHUS	AAG
FORBEAGLE	LAMNA NASUS	AAH
WHITE SHARK	CARCHARODON CARCHARIAS	AAI
BASKING SHARK	CETORHINUS MAXIMUS	AAJ
THRESHER SHARK	ALOPIAS VULPINUS	AAK
LESSER SPOTTED DOGFISH(ROUGH HOUND)	SCYLIORHINUS CANICULUS	AAL
LARGE SPOTTED DOGFISH(NURSE HOUND)	SCYLIORHINUS STELLARIS	AAM
BLACK-MOUTHED DOGFISH	GALEUS MELASTOMUS	AAN
SMOOTH HOUND	MUSTELUS MUSTELUS	AAO
STELLATE SMOOTH HOUND	MUSTELUS ASTERIAS	AAP
BLUE SHARK	PRIONACE GLAUCA	AAQ
TOPE	GALEORHINUS GALEUS	AAR
COMMON HAMMERHEAD SHARK	SPHYRNA ZYGAEANA	AAS
HAMMERHEAD SHARK	SPHYRNA TUDES	AAT
COMMON SPINY DOGFISH	SQUALUS ACANTHIAS	AAU
BLAINVILLE'S DOGFISH	SQUALUS FERNANDINUS	AAV
MONKFISH	SQUATINA SQUATINA	AAW
MONKFISH	SQUATINA ACULEATA	AAX
MONKFISH	SQUATINA OCULATA	AAY
GUITAR FISH	RHINOBATOS RHINOBATOS	AAZ
MARbled ELECTRIC RAY	TORPEDO MARMORATA	ABA

DARK ELECTRIC RAY	TORPEDO NOBILIANA	ABB
STARRY RAY	RAJA ASTERIAS	ABC
STARRY RAY	RAJA RADIATA	ABD
BROWN RAY	RAJA MIRALETUS	ABE
BLONDE RAY	RAJA BRACHYURA	ABF
SPOTTED RAY	RAJA MONTAGUI	ABG
UNDULATE RAY	RAJA UNDULATA	ABH
PAINTED RAY	RAJA MICROCELLATA	ABI
THORNBACK RAY	RAJA CLAVATA	ABJ
CUCKOO RAY	RAJA NAEVUS	ABK
WHITE SKATE	RAJA ALBA	ABL
SANDY RAY	RAJA CIRCULARIS	ABM
COMMON SKATE	RAJA BATIS	ABN
SHAGREEN RAY	RAJA FULLONICA	ABO
LONG-NOSE SKATE	RAJA OXYRINCHUS	ABP
NO NAME	RAJA NIDAROSIENSIS	ABQ
COMMON STING RAY	DASYATIS PASTINACA	ABR
STING RAY	DASYATIS CENTROURA	ABS
BLUE STING RAY	DASYATIS VIOLACEA	ABT
EAGLE RAY	MYLIOBATIS AQUILA	ABU
BULL RAY	PTEROMYLAEUS BOVINUS	ABV
DEVIL FISH	MOBULA MOBULAR	ABW
STURGEON	ACIPENSER STURIO	ABX
STURGEON	HUSO HUSO	ABY
SPRAT	SPRATTUS SPRATTUS	ABZ
PILCHARD(SARDINE)	SARDINA FILCHARDUS	ACA
GILT SARDINE	SARDINELLA AURITA	ACB
ALLIS SHAD	ALOSA ALOSA	ACC
TWAIT SHAD	ALOSA FALLAX	ACD
ANCHOVY	ENGRAULIS ENCRASICOLUS	ACE
SALMON	SALMO SALAR	ACF

SEA TROUT	SALMO TRUTTA	ACG
ROUTING	COREGONUS OXYRINCHUS	ACH
SMELT	OSMERUS EPERLANUS	ACI
ARGENTINE	ARGENTINA SPHYRAENA	ACJ
PIKE	ESOX LUCIUS	ACK
EEL	ANGUILLA ANGUILLA	ACL
MORAY EEL	MURAENA HELENA	ADM
CONGER EEL	CONGER CONGER	ADN
GOLDEN BALFARIC EEL	CONGEROMURAENA BALEARICA	ADO
SKIPPER	SCOMBERESOX SAURUS	ACP
GARPIKE	BELONE BELLONE	ADD
FLYING FISH	EXOCOETUS VOLITANS	ADR
FLYING FISH	EXOCOETUS OBTUSIROSTRIS	ADS
FLYING FISH	CYPSELURUS HETERURUS	ADT
FLYING FISH	CYPSELURUS PINNATIBARBATUS	ADU
FLYING FISH	DANICHTHYS RONDELETTI	ADV
POUTASSOU	MICROMESISTIUS POUTASSOU	ADW
WHITING	MERLANGIUS MERLANGUS	ADX
BIB	TRISOPTERUS LUSCUS	ADY
POOR-COD	TRISOPTERUS MINUTUS	ACZ
POLLACK	POLLACHIUS POLLACHIUS	ADA
SAITH	POLLACHIUS VIRENS	ADB
COD	GADUS MORHUA	ADC
HADDOCK	MELANOGRAMMUS AEGLEFINUS	ADD
TUSK	BROSME BROSME	ADE
GREATER FORK-BEARD	PHYCIS BLENNOIDES	ADF
LESSER FORK-BEARD	PHYCIS PHYCIS	ADG
HAKE	MERLUCCIUS MERLUCCIUS	ADH
LING	MOLVA MOLVA	ADI
NO NAME	MOLVA DYPTERYGIA	ADJ
MEDITERRANEAN LING	MOLVA MACROPHALMA	ADK

TADPOLE FISH	RANICEPS RANINUS	ADL
SHORE ROCKLING	GAIDROPSARUS MEDITERRANEUS	ADM
THREE-BEARDED ROCKLING	GAIDROPSARUS VULGARIS	ADN
FOUR-BEARDED ROCKLING	RHINONEMUS CIMBRIUS	ADO
FIVE-BEARDED ROCKLING	CILIATA MUSTELA	ADP
NORTHERN ROCKLING	CILIATA SEPTENTRIONALIS	ADQ
TRUMPET FISH	MACRORHAMPHOSUS SCOLOPAX	ADR
SEA HORSE	HIPPOCAMPUS RAMULOSUS	ADS
SEA HORSE	HIPPOCAMPUS HIPPOCAMPUS	ADT
SPOTTED PIPEFISH	NEROPHIS MACULATUS	ADU
STRAIGHT-NOSED PIPEFISH	NEROPHIS OPHIDIION	ADV
WORM PIPEFISH	NEROPHIS LUMBRICIFORMIS	ADW
SNAKE PIPEFISH	ENTELURUS AEQUOREUS	ADX
DARK-FLANK PIPEFISH	SYNGNATHUS TAENIONOTUS	ADY
PIPEFISH	SYNGNATHUS PHLEGON	ADZ
SHORT-SNOURED PIPEFISH	SYNGNATHUS ABASTER	AEA
NILSSON'S PIPEFISH	SYNGNATHUS ROSTELLATUS	AEB
DEEP-SNOURED PIPEFISH	SYNGNATHUS TYPHLE	AEC
GREAT PIPEFISH	SYNGNATHUS ACUS	AED
JOHN DORY	ZEUS FABER	AEE
BOAR FISH	CAPROS APER	AEF
BARRACUDA	SPHYRAENA SPHYRAENA	AEG
SAND SMELT	ATHERINA PRESBYTER	AEH
CASPIAN SAND SMELT	ATHERINA MOCHON	AEI
SAND SMELT	ATHERINA HEPSETUS	AEJ
BOYER'S SMELT	ATHERINA BOYERI	AEK
COMMON GREY MULLET	MUGIL CEPHALUS	AEL
THICK-LIPPED GREY MULLET	ORENIMUGIL LABROSUS	AEM
MULLET	MUGIL LABEO	AEN
GOLDEN GREY MULLET	LIZA AURATUS	AEO
THIN-LIPPED GREY MULLET	LIZA RAMADA	AEP

LEAPING GREY MULLET	MUGIL SALIENS	AEO
CARDINAL FISH	APOGON IMBERBIS	AER
BASS	DICENTRARCHUS LABRAX	AES
SPOTTED BASS	DICENTRARCHUS FUNCTATUS	AET
WRECK FISH	POLYPRION AMERICANUS	AEU
GROUPE	EPINEPHELUS GUAZA	AEV
GROUPE	EPINEPHELUS ALEXANDRINUS	AEW
COMBER	SERRANUS CABRILLA	AEX
PAINTED COMBER	SERRANUS SCRIBA	AEY
BROWN COMBER	SERRANUS HEPATUS	AEZ
SHEEPSHEAD BREAM	PUNTAZZO PUNTAZZO	AFA
COUCH'S SEA BREAM	PAGRUS PAGRUS	AFB
TWO BANDED BREAM	DIPLODUS VULGARIS	AFC
NO NAME	DIPLODUS CERVINUS	AFD
SADDLED BREAM	OBLADA MELANURA	AFE
BOGUE	BOOPS BOOPS	AFF
PANDORA	PAGELLUS ERYTHRINUS	AFG
RED SEA BREAM	PAGELLUS BOGARAVEO	AFH
SPANISH BREAM	PAGELLUS ACARNE	AFI
MARMORA	LITHOGNATHUS MORMYRUS	AFJ
SAUPE	SARDA SALPA	AFK
DENTEX	DENTEX DENTEX	AFL
GILTHEAD	SPARUS AURATA	AFM
BLACK BREAM	SPONDYLIOSOMA CANTHARUS	AFN
ANNULAR BREAM	DIPLODUS ANNULARIS	AFO
WHITE BREAM	DIPLODUS SARGUS	AFR
PICAREL	MAENA CHRYSELIS	AFQ
PICAREL	MAENA SMARIS	AFR
RED MULLET	MULLUS SURMULETUS	AFS
RED MULLET	MULLUS BARBATUS	AFT
GOAT FISH	PSEUDUPENEUS BARBERINUS	AFU

MEAGRE	ARGYROSCOMUS REGIUM	AFV
BROWN MEAGRE	SCIAENA UMBRA	AFW
CORB	UMBRINA CIRROSA	AFX
BLUE FISH	POMATOMUS SALTATOR	AFY
HORSE MACKEREL	TRACHURUS TRACHURUS	AFZ
AMBERJACK	SERIOLA DUMERILI	AGA
PILOT FISH	NAUCRATES DUCTOR	AGB
LEER FISH	LICHIA AMIA	AGC
NO NAME	CAMPOGRAMMA GLAYCOS	AGD
POMPANO	TRACHINOTUS OVATUS	AGE
DOLPHIN FISH	CORYPHAENA HIPPIURUS	AGF
RAY'S BREEM	BRAMA BRAMA	AGG
RED BAND FISH	CEPOLA RUBESCENS	AGH
DAMSEL FISH	CHROMIS CHROMIS	AGI
CUCKOO WRASSE	LABRUS MIXTUS	AGJ
BROWN WRASSE	LABRUS MERULA	AGK
BALLAN WRASSE	LABRUS BERGYLTA	AGL
GREEN WRASSE	LABRUS TURDUS	AGM
AXILLARY WRASSE	CRENILABRUS MEDITERRANEUS	AGN
BLACK-TAILED WRASSE	CRENILABRUS MELANOCERCUS	AGO
CORKWING WRASSE	CRENILABRUS MELOPS	AGP
OCCELLATED WRASSE	CRENILABRUS OCELLATUS	AGQ
PAINTED WRASSE	CRENILABRUS TINCA	AGR
FIVE SPOTTED WRASSE	CRENILABRUS QUINQUEMACULATUS	AGS
WRASSE	CRENILABRUS DODERLEINI	AGT
GREY WRASSE	CRENILABRUS CINEREUS	AGU
LONG-SNOOUTED WRASSE	CRENILABRUS ROSTRATUS	AGV
ROCK WRASSE	CRENTOLABRUS EXOLETUS	AGW
GOLDSINNY	CTENOLABRUS RUPESTRIS	AGX
WRASSSE	LAPPANELLA FASCIATA	AGY
RAINBOW WRASSE	DORIS JULIS	AGZ

CLEAVER WRASSE	XYRICHTHYS NOVACULA	AHA
PARROT FISH	EUSCARUS CRETENSIS	AHE
SPOTTED WEEVER	TRACHINUS ARANEUS	AHC
GREAT WEEVER	TRACHINUS DRACO	AHE
STREAKED WEEVER	TRACHINUS RADIATUS	AHE
LESSER WEEVER	TRACHINUS VIPERA	AHF
STAR GAZER	URANOSCOPUS SCABER	AHC
SCABBARD FISH	LEPIDOPUS CAUDATUS	AHF
ATLANTIC MACKEREL	SCOMBER SCOMBRUS	AHJ
CHUB MACKEREL	SCOMBER COLIAS	AHJ
ATLANTIC BONITO	SARDA SARDA	AHI
TUNNY	THUNNUS THYNNUS	AHI
ALBACORE	THUNNUS ALALUNGA	AHI
LITTLE TUNNY	EUTHYNNUS ALLETTERATUS	AHI
SKIPJACK TUNA	EUTHYNNUS (KATSUWONUS) PELAMIS	AHI
FRIGATE MACKEREL	AUXIS THAZARD	AHI
MARLIN	TETRAPTURUS BELONE	AH
WHITE MARLIN	TETRAPTURUS ALBIDUS	AH
SWORD FISH	XIPHIAS GLADIUS	AH
LUVAR	LUVARUS IMPERIALIS	AH
BLACK FISH	CENTROLOPHUS NIGER	AH
NO NAME	CALLIONYMUS BELENUS	AH
NO NAME	CALLIONYMUS PHAETON	AH
DRAGONET	CALLIONYMUS LYRA	AH
NO NAME	CALLIONYMUS RETICULATUS	AH
SPOTTED DRAGONET	CALLIONYMUS MACULATUS	AH
SMOOTH SAND EEL	GYMNAMMODYTES SEMISQUAMATUS	AI
SAND LANCE	GYMNAMMODYTES CIGERELLUS	AI
SAND EEL	AMMODYTES TOBIANUS	AI
SAND EEL	AMMODYTES MARINUS	AI
GREATER SAND EEL	HYPEROPLUS LANCEOLATUS	AI

NO NAME	HYPEROPLUS IMMACULATUS	AIF
BUTTERFLY BLENNY	BLENNIUS OCCELLARIS	AIG
RED SPECKLED BLENNY	BLENNIUS SANGUINOLENTUS	AIH
TOMPOUT BLENNY	BLENNIUS GATTORUGINE	AII
HORNED BLENNY	BLENNIUS TENTACULARIS	AIO
ZOANIMIA'S BLENNY	BLENNIUS ZOANIMIAI	AIK
BLENNY	BLENNIUS CRISTATUS	AIL
PEACOCK BLENNY	BLENNIUS FAVO	AIM
ZEBRA BLENNY	BLENNIUS BASILICUS	AIN
BLENNY	BLENNIUS SPHINX	AIO
STRIPED BLENNY	BLENNIUS ROUXI	AIP
SHANNY	BLENNIUS PHOLIS	AIS
MONTAGU'S BLENNY	CORYPHOBLENNIUS GALEPITA	AIR
BLENNY	BLENNIUS CANEVAE	AIS
BLACK-HEADED BLENNY	BLENNIUS NIGRICEPS	AIT
BLENNY	BLENNIUS DALMATINUS	AIU
NO NAME	CRISTICEPS ARGENTATUS	AIV
BLACK-FACED BLENNY	TRIPTERYGION TRIPTERONOTUS	AIW
PIGMY BLACK-FACED BLENNY	TRIPTERYGION MINOR	AIX
BUTTERFISH	PHOLIS GUNNELLUS	AIY
YARRELL'S BLENNY	CHIROLOPHIS ASCANII	AIZ
EEL POUT	ZOARCES VIVIPARUS	AJA
SPOTTED CATFISH	ANARHICHAS MINOR	AJB
WOLF FISH	ANARHICHAS LUPUS	AJC
BLENNY	OPHIDIION BARBATUM	AJD
NO NAME	PAROPHIDIION VASSALI	AJE
PEARL FISH	CARAPUS ACUS	AJF
NO NAME	ECHIODON DRUMMONDI	AJG
BLACK GOBY	GOBIUS NIGER	AJH
SLENDER GOBY	GOBIUS GENIFORUS	AJI
BUCCICH'S GOBY	GOBIUS BUCCICHII	AJJ

LEOPARD-SPOTTED GOBY	GOBIUS FORSTERI	AJK
RED MOUTHED GOBY	GOBIUS CRUENTATUS	AJL
ROCK GOBY	GOBIUS PAGANELLUS	AJM
GRASS GOBY	ZOSTERISSESSOR OPHIOCEPHALUS	AJN
GIANT GOBY	GOBIUS COBITIS	AJO
LEOPARD-SPOTTED GOBY	THOROGGOBIUS EPHIPPIATUS	AJP
SANZONI'S GOBY	LESUEURIGGOBIUS SANZOI	AJO
JEFFREYS'S GOBY	BUENIA JEFFREYSII	AJR
FRIES'S GOBY	LESUEURIGGOBIUS FRIESII	AJS
LE SUEUR'S GOBY	LESUEURIGGOBIUS GUERII	AJT
FOUR-SPOTTED GOBY	DELTENTOSTEUS QUADRIMACULATUS	AJU
GOBY	DELTENTOSTEUS COLONIANUS	AJV
SAND GOBY	POMATOSCHISTUS MINUTUS	AJW
PAINTED GOBY	POMATOSCHISTUS PICTUS	AJX
GOBY	POMATOSCHISTUS NORVEGICUS	AJY
KNER'S GOBY	POMATOSCHISTUS KNERII	AJZ
MARbled GOBY	POMATOSCHISTUS MARMORATUS	AKA
COMMON GOBY	POMATOSCHISTUS MICROPS	AKB
TORTONES'S GOBY	POMATOSCHISTUS TORTONESEI	AKC
TWO-SPOTTED GOBY	CHAPARRUDO FLAVESCENS	AKD
STRIPED GOBY	GOBIUS VITTATUS	AKE
GOBY	LEBETUS ORCA	AKF
LIECHTENSTEIN'S GOBY	CORCYROGOBIUS LIECHTENSTEINI	AKG
CORALLINE GOBY	ODONDEBUENIA BALEARICA	AKH
ZEBRA GOBY	ZEBRUS ZEBRUS	AKI
KOLOMBATOVIC'S GOBY	CHROMOGGOBIUS ZEBRATUS	AKJ
BEN-TUVIA'S GOBY	DIDOGGOBIUS BENTUVII	AKK
BANDED GOBY	CHROMOGGOBIUS QUADRIVITTATUS	AKL
LARGE SCALED GOBY	THOROGGOBIUS MACROLEPIS	AKM
TWO-SPOTTED CLINGFISH	DIPLECOSTASTER BIMACULATA	AKN
SHORE CLINGFISH	LEPADOGASTER LEPADOGASTER	AKO

CONNEMARA CLINGFISH	LEPADOGASTER CANDOLLEI	AKP
ANGLER FISH	LOPHIUS PISCATORIUS	AKQ
SCHMIDT'S GOBY	GOBIUS SCHMIDTI	AKR
TRANSPARENT GOBY	APHIA MINUTA	AKS
FERRER'S GOBY	PSEUDAPHYA FERRERI	AKT
CRYSTAL GOBY	CRYSTALLOGOBIUS LINEARIS	AKU
PIPER	TRIGLA LYRA	AKV
TUB GURNARD	TRIGLA LUCERNA	AKW
STREAKED GURNARD	TRIGLOPORUS LASTOVIZA	AKX
GREY GURNARD	EUTRIGLA GURNARDUS	AKY
RED GURNARD	ASPIRIGLA CUCULUS	AKZ
ARMED GURNARD	PERISTEDION CATAPHRACTUM	ALA
FLYING GURNARD	DACTYLOPTERUS VOLITANS	ALB
SCORPION FISH	SCORPAENA FORCUS	ALC
SCORPION FISH	SCORPAENA SCORPA	ALD
SCORPION FISH	SCORPAENA NOBILIS	ALE
FATHER LASHER	MYOXOCEPHALUS SCORPIUS	ALF
LONG-SPINED SEA SCORPION	TAURULUS BUBALIS	ALG
NORWAY BULLHEAD	TAURULUS LILLJEBORGI	ALH
FOUR HORNED SCULPIN	ONCOCOTTUS QUADRICORNIS	ALI
HORN-NOSE	AGONUS CATAPHRACTUS	ALJ
LUMP SUCKER	CYCLOPTERUS LUMPUS	ALK
SEA SNAIL	LIPARIS LIPARIS	ALL
MONTAGU'S SEA SNAIL	LIPARIS MONTAGUI	ALM
THREE-SPINED STICKLEBACK	GASTEROSTEUS ACULEATUS	ALN
FIFTEEN-SPINED STICKLEBACK	SPINACHIA SPINACHIA	ALO
TURBOT	SCOPHTHALMUS MAXIMUS	ALP
BRILL	SCOPHTHALMUS RHOMBUS	ALQ
TOPKNOT	ZEDDAPTERUS PUNCTATUS	ALR
BLOCH'S TOPKNOT	PHRYNORHOMBUS REGIUS	ALS
NORWEGIAN TOPKNOT	PHRYNORHOMBUS NORVEGICUS	ALT

MEGRIM	LEPIDORHOMBUS WHIFFIAGONIS	ALU
NO NAME	LEPIDORHOMBUS BOSCHII	ALV
WIDE-EYED FLOUNDER	BOTHAS PODAS	ALW
SCALDFISH	ARNOGLOSSUS LATERNA	ALX
NO NAME	ARNOGLOSSUS THORI	ALY
NO NAME	ARNOGLOSSUS IMPERIALIS	ALZ
FLOUNDER	PLATICHTHYS FLESUS	AMA
PLAICE	PLEURONECTES PLATESSA	AMB
LEMON SOLE	MICROSTOMUS KITT	AMC
WITCH	GLYPTOCEPHALUS CYNOGLOSSUS	AMD
LONG ROUGH DAB	HIPPOGLOSSOIDES PLATESSOIDES	AME
HALIBUT	HIPPOGLOSSUS HIPPOGLOSSUS	AMF
SOLE	SOLEA SOLEA	AMG
EYED SOLE	SOLEA OCELLATA	AMH
THICKBACK SOLE	MICROCHIRUS VARIEGATUS	AMI
SOLENETTE	BUGLOSSIDIUM LUTEUM	AMJ
SAND SOLE	PEGUSA LASCARIS	AMK
NO NAME	SOLEA KLEINII	AML
NO NAME	MONOCHIRUS HISPIDUS	AMM
COMMON REMORA	REMORA REMORA	AMN
SHARK SUCKER	ECHENEIS NAUCRATES	AMO
TRIGGER FISH	BALISTES CAROLINENSIS	AMP
SUN FISH	MOLA MOLA	AMQ
NO NAME	MOLA DYPTERYGIA	AMR
BLUNT-NOSED CLINGFISH	GOUANIA WILDENOWI	AMS
SMALL HEADED CLINGFISH	APLETODON MICROCEPHALUS	AMT
GOLDEN GOBY	GOBIUS AURATUS	AMU
ROULE'S GOBY	GOBIUS ROULEI	AMV
BELLOTTI'S GOBY	GOBIUS ATER	AMW
SARATO'S GOBY	GOBIUS FALLAX	AMX
GRAYLING	THYMALLUS THYMALLUS	AMY

LAVARET	COREGONUS LAVARETUS	AMZ
CHARR	SALVELINUS ALPINUS	ANA
BROOK TROUT	SALVELINUS FONTINALIS	ANB
RAINBOW TROUT	SALMO GAIRDNERI	ANC
CARP	CYPRINUS CARPIO	AND
CRUCIAN CARP	CARASSIUS CARASSIUS	ANE
GOLDFISH	CARASSIUS AURATUS	ANF
BARBEL	BARBUS BARBUS	ANG
GUDGEON	GOBIO GOBIO	ANH
TENCH	TINCA TINCA	ANI
SILVER BREAM	BLICCA BJOERKNA	ANJ
BLEAK	ALBURNUS ALBURNUS	ANK
COMMON BREAM	ABRAMIS BRAMA	ANL
MINNOW	PHOXINUS PHOXINUS	ANM
RUDD	SCARDINIUS ERYTHROPHthalmus	ANN
ROACH	RUTILUS RUTILUS	ANO
CHUB	LEUCISCUS CEPHALUS	ANP
DACE	LEUCISCUS LEUCISCUS	ANQ
BITTERLING	RHODEUS SERICEUS	ANR
ORFE	LEUCISCUS IDUS	ANS
SPINED LOACH	COBITIS TAENIA	ANT
STONE LOACH	NOEMACHEILUS BARBATULUS	ANU
WELS	SILURUS GLANIS	ANV
BURBOT	LOTA LOTA	ANW
PERCH	PERCA FLUVIATILIS	ANX
ZANDER	STIZOSTEDION LUCIOPERCA	ANY
RUFFE	GYMNOCEPHALUS CERNUA	ANZ
TEN-SPINED STICKLEBACK	PUNGITIUS PUNGITIUS	AOA
LEATHERY TURTLE	DERMOCHELYS CORIADEA	AOB
KEMP'S RIDLEY	LEPIDOCHELYS KEMPI	AOC
LOGGERHEAD	CARETTA CARETTA	AOD

GREENTURTLE	CHELONIA MYDAS	AOE
HAWKSBILL	ERETMOCHELYS IMBRICATA	AOF
GRASS SNAKE	NATRIX NATRIX	AOG
ASP VIPER	VIPERA ASPIS	AQH
ADDER	VIPERA BERUS	AOI
GREEN LIZARD	LACERTA VIRIDIS	AOJ
SAND LIZARD	LACERTA AGILIS	AOK
WALL LIZARD	LACERTA MURALIS	AOL
COMMON LIZARD	LACERTA VIVIPARA	AOM
SLOW-WORM	ANGUIS FRAGILIS	AON
EUROPEAN TREE FROG	HYLA ABOREA	AOO
FROG	RANA SP.	AOP
EDIBLE FROG	RANA ESCULENTA	AQQ
MARSH FROG	RANA RIDIBUNDA	AOR
COMMON FROG	RANA TEMPORARIA	AOS
COMMON TOAD	BUFO BUFO	AOT
GREEN TOAD	BUFO VIRIDIS	AOU
NATTERJACK TOAD	BUFO CALAMITA	AOV
NEWT	TRITURUS SP.	AOW
CRESTED NEWT	TRITURUS CRISTATUS	AOX
COMMON NEWT	TRITURUS VULGARIS	AOY
PALMATE NEWT	TRITURUS HELVETICUS	AOZ
PYGMY SHREW	SOREX MINUTUS	APA
COMMON SHREW	SOREX ARANEUS	APB
WATER SHREW	NEOMYS FODIENS	APC
BICOLOURED SHREW	CROCIDURA LEUCODON	APD
LESSER WHITE-TOOTHED SHREW	CROCIDURA SUAVEOLENS	APE
GREATER WHITE-TOOTHED SHREW	CROCIDURA RUSSULA	APF
MOLE	TALPA EUROPAEA	APG
GREATER HORSESHOE BAT	RHINOLOPHUS FERRUM-EQUINUM	APH
LESSER HORSESHOE BAT	RHINOLOPHUS HIPPOSIDEROS	API

DAUBENTON'S BAT	MYOTIS DAUBENTONI	APJ
POND BAT	LEUCONOE DASYCNEME	APK
WHISKERED BAT	MYOTIS MYSTACINUS	APL
GEOFFREY'S BAT	MYOTIS EMARGINATUS	APM
NATTERER'S BAT	MYOTIS NATTERERI	APN
BECHSTEIN'S BAT	MYOTIS BECHSTEINI	APD
MOUSE EARED BAT	MYOTIS MYOTIS	APP
LESSER MOUSE EARED BAT	MYOTIS OXYGNATHUS	APQ
LONG-EARED BAT	PLECOTUS SP.	APR
COMMON LONG-EARED BAT	PLECOTUS AURITUS	APS
GREY LONG-EARED BAT	PLECOTUS AUSTRIACUS	APT
BARBASTELLE	BARBASTELLA BARBASTELLUS	APU
PIPISTRELLE	PIPISTRELLUS PIPISTRELLUS	APV
SERONTINE	EPTESICUS SEROTINUS	APW
PARTI-COLOURED BAT	VESPERTILIO MURINUS	APX
NOCTULE	NYCTALUS NOCTULA	APY
LEISLER'S BAT	NYCTALUS LEISLERI	APZ
RABBIT	ORYCTOLAGUS CUNICULUS	AQA
DOMESTIC RABBIT	ORYCTOLAGUS (DOMESTIC)	AQB
BROWN HARE	LEPUS CAPENSIS	AQC
RED SQUIRREL	SCIURUS VULGARIS	AQD
GREY SQUIRREL	SCIURUS CAROLINENSIS	AQE
BEAVER	CASTOR FIBER	AQF
GARDEN DORMOUSE	ELIOMYS QUERCINUS	AQG
EDIBLE DORMOUSE	GLIS GLIS	AQH
DORMOUSE	MUSCARDINUS AVELLANARIUS	AQI
COMMON HAMSTER	CRICETUS CRICETUS	AQJ
ARCTIC LEMMING	DICROSTONYX TORQUATUS	AQK
NORWAY LEMMING	LEMMUS LEMMUS	AQL
BANK VOLE	CLETHRIONOMYS GLAREOLUS	AQM
WATER VOLE	ARVICOLA TERRESTRIS	AQN

COMMON VOLE	MICROTUS ARVALIS	AQO
SHORT TAILED VOLE	MICROTUS AGRISTIS	AQP
PINE VOLE	PITYMYS SUBTERRANEUS	AQQ
ROOT VOLE	MICROTUS OECONOMUS	AQR
MUSKRAT	ONDATRA ZIBETHICA	AQS
HARVEST MOUSE	MICROMYS MINUTUS	AQT
MOUSE	APODEMUS SP.	AQU
YELLOW-NECKED MOUSE	APODEMUS FLAVICOLLIS	AVV
WOOD MOUSE	APODEMUS SYLVATICUS	AQW
BLACK RAT	RATTUS RATTUS	AOX
BROWN RAT	RATTUS NORVEGICUS	AOY
HOUSE MOUSE	MUS MUSCULUS	AQZ
WOLF	CANIS LUPUS	ARA
BROWN BEAR	URSUS ARCTOS	ARB
BADGER	MELES MELES	ARC
STOAT	MUSTELA ERMINEA	ARD
WEASEL	MUSTELA NIVALIS	ARE
AMERICAN MINK	MUSTELA VISON	ARF
EUROPEAN MINK	MUSTELA LUTREOLA	ARG
POLECAT	MUSTELA PUTORIUS PUTORIUS	ARH
DOMESTIC FERRET	MUSTELA PUTORIUS FERO	ARI
OTTER	LUTRA LUTRA	ARL
PINEMARTIN	MARTES MARTES	ARK
GLUTTON	GULO GULO	ARL
WILD CAT	FELIS SILVESTRIS	ARN
WALRUS	ODOBENUS ROSMARUS	ARN
COMMON SEAL	PHOCA VITULINA	ARO
RINGED SEAL	PUSA HISPIDA	ARF
HARP SEAL	PAGOPHILIUS GROENLANDICUS	ARO
BEARDED SEAL	ERIGNATHUS BARBATUS	ARI
GREY SEAL	HALICHOERUS GRYPUS	ARI

HOODED SEAL	CYSTOPHORA CRISTATA	ART
MONK SEAL	MONACHUS MONACHUS	ARU
WILD HORSE	EQUUS CABALLUS	ARV
MULE	EQUUS SP	ARW
DONKEY	EQUUS SP	ARX
CHINESE WATER DEER	HYDROPOTES INERMIS	ARY
INDIAN MUNTJAC	MUNTIACUS MUNTJAK	ARZ
MUNTJAC	MUNTIACUS SP	ASA
SIKA DEER	CERVUS NIPPON	ASB
ELK	ALCES ALCES	ASC
REINDEER	RANGIFER TARANDUS	ASD
EUROPEAN BISON	BISON BONASUS	ASE
AUROCH	BOS PRIMIGENIUS	ASF
BUFFALO	BUBALIS BUBALIS	ASG
WILD GOAT	CAPRA HIRCUS	ASH
CUVIER'S WHALE	ZIPHIUS CAVIROSTRIS	ASI
SOWERBY'S WHALE	MESOPLODON BIDENS	ASJ
GERAIS WHALE	MESOPLODON EUROPAEUS	ASK
GREY'S WHALE	MESOPLODON GRAYI	ASL
BLAINVILLE'S WHALE	MESOPLODON DENSIROSTRIS	ASM
TRUE'S BEAKED WHALE	MESOPLODON MIRUS	ASN
BOTTLE-NOSED WHALE	HYPEROODON AMPULLATUS	ASO
SPERM WHALE	PHYSETER CATODON	ASP
PYGMY SPERM WHALE	KOGIA BREVICEPS	ASQ
ROUGH TOOTHED-DOLPHIN	STENO BREDANENSIS	ASR
EUPHROSYNE DOLPHIN	STENELLA EUPHROSYNE	ASS
BRIDLED DOLPHIN	STENELLA DUBIA	AST
COMMON DOLPHIN	DELPHINUS DELPHIS	ASU
WHITE SIDED DOLPHIN	LAGENORHYNCHUS ACUTUS	ASV
WHITE BEAKED DOLPHIN	LAGENORHYNCHUS ALBIROSTRIS	ASW
RISSON'S DOLPHIN	GRAMPUS GRISEUS	ASX

KILLER WHALE	ORCINUS ORCA	ASY
FALSE KILLER WHALE	PSEUDORCA CRASSIDENS	ASZ
GREBES	PODICIPEDIDAE	ATA
LITTLE GREBE	TACHYBAPTUS RUFICOLLIS	ATB
BLACK-NECKED GREBE	PODICEPS NIGRICOLLIS	ATC
SLAVONIAN GREBE	PODICEPS AURITUS	ATD
RED-NECKED GREBE	PODICEPS GRISEGENA	ATE
GREAT CRESTED GREBE	PODICEPS CRISTATUS	ATF
PETRELS	PROCELLARIIDAE	ATG
FULMAR	FULMARUS GLACIALIS	ATH
CORY'S SHEARWATER	CALONECTRIS DIOMEDEA	ATI
GREAT SHEARWATER	PUFFINUS GRAVIS	ATL
SOOTY SHEARWATER	PUFFINUS GRISEUS	ATK
MANX SHEARWATER	PUFFINUS PUFFINUS	ATL
STORM PETRELS	HYDROBATIDAE	ATP
STORM PETREL	HYDROBATES PELAGICUS	ATN
WILSON'S PETREL	OCEANITES OCEANICUS	ATC
LEACH'S PETREL	OCEANODROMA LEUCORRHOEA	ATF
PELICANS	PELECANIDAE	ATC
WHITE PELICAN	PELECANUS ONOCROTALUS	ATF
DALMATIAN PELICAN	PELECANUS CRISPUS	ATG
GANNETS	SULIDAE	ATL
GANNET	SULA BASSANA	ATI
CORMORANTS	PHALACROCORAX	ATI
CORMORANT	PHALACROCORAX CARBO	ATI
SHAG	PHALACROCORAX ARISTOTELIS	ATI
PYGMY CORMORANT	PHALACROCORAX PYGMAEUS	ATI
HERONS	ARDEIDAE	ATI
AMERICAN BITTERN	BOTAURUS LENTIGINOSUS	AU
LITTLE BITTERN	IXOBRYCHUS MINUTUS	AU
NIGHT HERON	NYCTICORAX NYCTICORAX	AU

SQUACCO HERON	ARDEOLA RALLOIDES	AUD
CATTLE EGRET	BOBULOUS IBIS	AUE
GREAT WHITE EGRET	EGRETTA ALBA	AUF
LITTLE EGRET	EGRETTA GARZETTA	AUG
GREY HERON	ARDEA CINEREA	AUH
PURPLE HERON	ARDEA PURPUREA	AUI
STORKS	CICONIIDAE	AUJ
WHITE STORK	CICONIA CICONIA	AUK
BLACK STORK	CICONIA NIGRA	AUL
SPOONBILLS	THRESKIORNITHIDAE	AUM
SPOONBILL	PLATALEA LEUCORODIA	AUN
GLOSSY IBIS	PLEGADIS FALCINELLIS	AUG
FLAMINGOS	PHOENICOPTERIDAE	AUF
GREATER FLAMINGO	PHOENICOPTERIS RUBER	AUG
GEESE AND DUCKS	ANATIDAE	AUR
GOOSE	BRANTA SP.	AUS
CANADA GOOSE	BRANTA CANADENSIS	AUT
BARNACLE GOOSE	BRANTA LEUCOPSIS	AUU
BRENT GOOSE	BRANTA BERNICLA	ADV
RED-BREASTED GOOSE	BRANTA RUFICOLLIS	AUW
GREY-LAG GOOSE	ANSER ANSER	AUX
DOMESTIC GOOSE	ANSER SP.	AUY
WHITE-FRONTED GOOSE	ANSER ALBIFRONS	AUZ
BEAN GOOSE	ANSER FABALIS FABALIS	AVA
PINK-FOOTED GOOSE	ANSER FABALIS BRACHYRHYNCHUS	AVB
SNOW GOOSE	ANSER CAERULESCENS	AVC
SWAN	CYGNUS SP.	AVD
MUTE SWAN	CYGNUS OLOR	AVE
WHOOPEE SWAN	CYGNUS CYGNUS	AVF
BEWICK'S SWAN	CYGNUS BEWICKII	AVG
RUDDY SHELDUCK	TADORNA FERRUGINEA	AVH

SHELDUCK	TADORNA TADORNA	AVI
DOMESTIC DUCK	ANAS SP	AVJ
MALLARD	ANAS PLATYRHYNCHOS	AVK
TEAL	ANAS CRECCA	AVL
BLUE WINGED TEAL	ANAS DISCORS	AVM
BAIKAL TEAL	ANAS FORMOSA	AVN
GADWALL	ANAS STREPERA	AVO
WIGEON	ANAS FENELOPE	AVP
AMERICAN WIGEON	ANAS AMERICANA	AVQ
PINTAIL	ANAS ACUTA	AVR
GARGANEY	ANAS QUERQUEDULA	AVS
SHOVELER	ANAS CLYPEATA	AVT
MARbled TEAL	ANAS ANGUSTIROSTRIS	AVU
RED-CRESTED POCHARD	NETTA RUFINA	AVV
POCHARD	AYTHYA FERINA	AVW
DUCK	AYTHYA SP.	AVX
FERRUGINOUS DUCK	AYTHYA NYROCA	AVY
TUFTED DUCK	AYTHYA FULIGULA	AVZ
MANDARIN	AIX GALERICULATA	AWA
EIDER	SOMATERIA MOLLISSIMA	AWB
KING EIDER	SOMATERIA SPECTABILIS	AWC
STELLFRY'S EIDER	POLYSTICA STELLERI	AWD
COMMON SCOTER	MELANITTA NIGRA	AWE
VELVET SCOTER	MELANITTA FUSCA	AWF
SURF SCOTER	MELANITTA PERSPICILLATA	AWG
HARLEQUIN	HISTRIONICUS HISTRIONICUS	AWH
LONG TAILED DUCK	CLANGULA HYEMALIS	AWI
GOLDENEYE	BUCEPHALA CLANGULA	AWJ
BARROW'S GOLDENEYE	BUCEPHALA ISLANDICA	AWK
SMEW	MERGUS ALBELLUS	AWL
RED-BREASTED MERGANSER	MERGUS SERRATOR	AWM

GOOSANDER	MERGUS MERGANSER	AWN
WHITE HEADED DUCK	OXYURA LEUCOCEPHALA	AWO
HAWKS BUZZARDS ETC.	ACCIPITRIDAE	AWF
OSPREY	PANDION HALIAETUS	AWQ
BLACK KITE	ELANUS CAERULEUS	AWR
HONEY BUZZARD	FERNIS APIVORUS	AWS
RED KITE	MILVUS MILVUS	AWT
BLACK KITE	MILVUS MIGRANS	AWU
GOSSHAWK	ACCIPITER GENTILIS	AWV
LEVANT SPARROW HAWK	ACCIPITER BREVIPES	AWW
SPARROW HAWK	ACCIPITER NISUS	AWX
ROUGH-LEGGED BUZZARD	BUTEO LAGOPUS	AWY
LONG-LEGGED BUZZARD	BUTEO RUFINUS	AWZ
BOOTED EAGLE	HIEREAETUS FENNATUS	AXA
BONELLI'S EAGLE	HIEREAETUS FASCIATUS	AXB
SPOTTED EAGLE	AQUILA CLANGA	AXC
TAWNT EAGLE	AQUILA RAPAX	AXD
LESSER SPOTTED EAGLE	AQUILA POMARINA	AXE
IMPERIAL EAGLE	AQUILA HELIACA	AXF
GOLDEN EAGLE	AQUILA CHRYSAETOS	AXG
WHITE-TAILED EAGLE	HALIAETUS ALBICILLA	AXH
SHORT TOED EAGLE	CIRCAETUS GALLICUS	AXI
HEN HARRIER	CIRCUS CYANEUS	AXJ
PALLID HARRIER	CIRCUS MACRODORUS	AXK
MONTAGU'S HARRIER	CIRCUS PYGARGUS	AXL
MARSH HARRIER	CIRCUS AERUGINOSUS	AXM
EYOPTIAN VULTURE	NEOPHRON PERCNOPTERUS	AXN
BEARDED VULTURE	GYPAETUS BARBATUS	AXO
BLACK VULTURE	AEGYPIUS MONACHUS	AXP
GRIFFON VULTURE	GYPSE FULVUS	AXQ
FALCON	FALCO SP.	AXR

GYR FALCON	FALCO RUSTICOLUS	AXS
SAKER	FALCO CHERRUG	AXT
LANNER	FALCO BIARMICUS	AXU
PEREGRINE	FALCO PEREGRINUS	AXV
HOBBY	FALCO SUBBUTEO	AXW
ELEONORA'S FALCON	FALCO ELEONORAE	AXX
MERLIN	FALCO COLUMBARIUS	AXY
RED-FOOTED FALCON	FALCO VESPERTINUS	AXZ
KESTREL	FALCO TINNUNCULUS	AYA
GROUSE	TETRAONIDAE	AYB
RED GROUSE	LAGOPUS LAGOPUS	AYC
PTARMIGAN	LAGOPUS MUTUS	AYD
GUINEA FOWL	NUMIDA MELEAGRIS	AYE
HAZEL HEN	TETRASTES BONASIA	AYF
TURKEY	MELAGRISAI GULIPOVO	AYG
BLACK GROUSE	LYRURUS TETRIX	AYH
PEACOCK	PAVO CRISTATUS	AYI
CAPERCAILLIE	TETRAO UROGALLUS	AYJ
PHEASANTS	PHASIANIDAE	AYK
ROCK PARTRIDGE	ALECTORIS GRAECA	AYL
CHUKAR	ALECTORIS CHUKAR	AYM
BARBARY PARTRIDGE	ALECTORIS BARBARA	AYN
RED-LEGGED PARTRIDGE	ALECTORIS RUFA	AYO
PARTRIDGE	PERDIX PERDIX	AYP
QUAIL	COTURNIX COTURNIX	AYQ
PHEASANT	PHASIANUS COLCHICUS	AYR
BUTTON QUAILS	TURNICIDAE	AYS
ANDALUSIAN HEMIPODE	TURNIX SYLVATICA	AYT
CRANES	GRUIDAE	AYU
CRANE	GRUS GRUS	AYV
CRANE	GRUS LEUCOGERANNE	AYW

DEMOISELLE CRANE	ANTHROPOIDES VIRGO	AYX
RAILS	RALLIDAE	AYY
WATER RAIL	RALLUS AQUATICUS	AYZ
LITTLE CRAKE	FORZANA PARVA	AZA
BAILLON'S CRAKE	FORZANA FUSILLA	AZB
CORNCRAKE	CREX CREX	AZC
MOORHEN	GALLINULA CHLOROPUS	AZD
PURPLE GALLINULE	PORPHYRIO PORPHYRIO	AZE
COOT	FULICA ATRA	AZF
CRESTED COOT	FULICA CRISTATA	AZG
BUSTARDS	OTIDAE	AZH
GREAT BUSTARD	OTIS TARDA	AZI
LITTLE BUSTARD	OTIS TETRAX	AZJ
HOUBARA BUSTARD	CHLAMYDOTIS UNDULATA	AZK
OYSTERCATCHERS	HAEMATOPODIDAE	AZL
OYSTERCATCHER	HAEMATOPUS OSTRALEGUS	AZM
PLOVERS	CHARADRIIDAE	AZN
RINGED PLOVER	CHARADRIUS HIATICULA	AZO
LITTLE RINGED PLOVER	CHARADRIUS DUBIUS	AZP
KENTISH PLOVER	CHARADRIUS ALEXANDRINUS	AZQ
GREATER SAND PLOVER	CHARADRIUS LESCHENAULTII	AZR
DOTTEREL	EUDROMIAS MORINELLUS	AZS
GOLDEN PLOVER	FLUVIALIS APRICARIA	AZT
LESSER GOLDEN PLOVER	FLUVIALIS DOMINICA	AZU
GREY PLOVER	FLUVIALIS SQUATAROLA	AZV
KILLDEER	CHARADRIUS VOCIFERUS	AZW
SOCIABLE PLOVER	VANELLUS GREGARIUS	AZX
LAPWING	VANELLUS VANELLUS	AZY
SPUR-WINGED PLOVER	VANELLUS SPINOSUS	AZZ
TURNSTONE	ARENARIA INTERPRES	B@@
CURLEWS	SCOLOPACIDAE	B@A

LITTLE STINT	CALIDRIS MINUTA	B@B
TEMMINCK'S STINT	CALIDRIS TEMMINCKII	B@C
WHITE-RUMPED SANDPIPER	CALIDRIS FUSCICOLLIS	B@D
PECTORAL SANDPIPER	CALIDRIS MELANOTOS	B@E
PURPLE SANDPIPER	CALIDRIS MARITIMA	B@F
DUNLIN	CALIDRIS ALPINA	B@G
CULEW SANDPIPER	CALIDRIS FERRUGINEA	B@H
KNOT	CALIDRIS CANUTUS	B@I
SANDERLING	CALIDRIS ALBA	B@J
RUFF	PHILONACHUS PUNGNAX	B@K
BUFF-BREASTED SANDPIPER	TRYNGITES SUBRUFICOLLIS	B@L
BROAD-BILLED SANDPIPER	LIMICOLA FALCINELLUS	B@M
LONG-BILLED DOWITCHER	LIMNODROMUS SCOLOPACEUS	B@N
SHORT-BILLED DOWITCHER	LIMNODROMUS GRISEUS	B@O
SPOTTED REDSHANK	TRINGA ERYTHROPUS	B@P
REDSHANK	TRINGA TOTANUS	B@Q
MARSH SANDPIPER	TRINGA STAGNATILIS	B@R
SOLITARY SANDPIPER	TRINGA SOLITARIA	B@S
GREENSHANK	TRINGA NEBULARIA	B@T
GREATER YELLOWLEGS	TRINGA MELANOLEUCA	B@U
LESSER YELLOWLEGS	TRINGA FLAVIPES	B@V
GREEN SANDPIPER	TRINGA OCHROPUS	B@W
WOOD SANDPIPER	TRINGA GLAREOLA	B@X
COMMON SANDPIPER	ACTITIS HYPOLEUCOS	B@Y
TEREK SANDPIPER	TRINGA CINEREUS	B@Z
BAR-TAILED GODWIT	LIMOSA LAPPONICA	BAA
CURLEW	NUMENIUS ARQUATA	BAB
SLENDER-BILLED CURLEW	NUMENIUS TENUIROSTRIS	BAC
WHIMBREL	NUMENIUS PHAEOPUS	BAD
ESKIMO CURLEW	NUMENIUS BOREALIS	BAE
UPLAND SANDPIPER	BARTRAMIA LONGICAUDA	BAF

WOODCOCK	SCOLOPAX RUSTICOLA	BAG
SNIFE	GALLINAGO GALLINAGO	BAH
GREAT SNIFE	GALLINAGO MEDIA	BAI
JACK SNIFE	LYMNOCRYPTES MINIMA	BAJ
STILTS	RECURVIROSTRIDAE	BAK
BLACK-WINGED STILT	HIMANTOPUS HIMANTOPUS	BAL
AVOCET	RECURVIROSTRA AVOSETTA	BAM
PHALAROPES	PHALAROPIDAE	BAN
GREY PHALAROPE	PHALAROPUS FULICARIUS	BAO
RED-NECKED PHALAROPE	PHALAROPUS LOBATUS	BAP
WILSON'S PHALAROPE	PHALAROPUS TRICOLOR	BAQ
THICK-KNEES	BURHINIDAE	BAR
STONE CURLEW	BURHINUS OEDICNEMUS	BAS
PRATINCOLES	GLAREOLIDAE	BAT
CREAM-COLOURED COURSER	CURSORIUS CURSOR	BAU
COLLARED PRATINCOLE	GLAREOLA PRATINCOLA	BAY
BLACK-WINGED PRATINCOLE	GLAREOLA NORDMANNI	BAW
SKUAS	STERCORARIIDAE	BAX
GREAT SKUA	STERCORARIUS SKUA	BAY
POMARINE SKUA	STERCORARIUS POMARINUS	BAZ
LONG-TAILED SKUA	STERCORARIUS LONGICAUDUS	BBA
GULLS	LARIDAE	BBB
MEDITERRANEAN GULL	LARUS MELANOCEPHALUS	BBG
BONAPARTE'S GULL	LARUS PHILADELPHIA	BBD
LITTLE GULL	LARUS MINUTUS	BBE
BLACK-HEADED GULL	LARUS RIDIBUNDUS	BBF
SLENDER-BILLED GULL	LARUS GENEI	BBG
LESSER BLACK-BACKED GULL	LARUS FUSCUS	BBH
HERRING GULL	LARUS ARGENTATUS	BBI
HERRING/LESSER BLACK-BACKED GULL	LARUS FUSCUS/ARGENTATUS	BBJ
ICELAND GULL	LARUS GLAUCCOIDES	BBK

GLAUCUS GULL	LARUS HYPERBOREUS	BBL
GREATER BLACK-BACKED GULL	LARUS MARINUS	BBM
COMMON GULL	LARUS CANUS	BBN
AUDOUIN'S GULL	LARUS AUDOUINII	BBQ
SABINE'S GULL	LARUS SABINI	BBP
KITTIWAKE	RISSA TRIDACTYLA	BBQ
ROSS'S GULL	RHODOSTETHIA ROSEA	BBR
IVORY GULL	PAGOPHILA EBURNEA	BBB
BLACK TERN	CHLIDONIAS NIGER	BBT
WHITE WINGED BLACK TERN	CHLIDONIAS LEUCOPTERUS	BBU
WHISKERED TERN	CHLIDONIAS HYBRIDA	BBV
GULL-BILLED TERN	GELOCHELIDON NILOTICA	BBW
CASPIAN TERN	HYDROPROGNE CASPIA	BBX
SANDWICH TERN	STERNA SANDVICENSIS	BBY
COMMON TERN	STERNA HIRUNDO	BBZ
ROSEATE TERN	STERNA DOUGALLII	BCA
SOOTY TERN	STERNA FUSCATA	BCB
LITTLE TERN	STERNA ALBIFRONS	BCC
AUKS	ALCIDAE	BCE
LITTLE AUK	ALLE ALLE	BCE
RAZORBILL	ALCA TORDA	BCF
GUILLEMOT	URIA AALGE	BCE
BRUNNICK'S GUILLEMOT	URIA LOMVIA	BCF
BLACK GUILLEMOT	CEPPHUS GRYLLE	BCI
PUFFIN	FRATERCULA ARCTICA	BCJ
GREAT AUK	PENGUINIS IMPENNIS	BCK
SANDGROUSE	PTEROCLIDAE	BCL
BLACK-BELLIED SAND GROUSE	PTEROCLES ORIENTALIS	BCI
PIN-TAILED SAND GROUSE	PTEROCLES ALCHATA	BCI
PALLAS'S SANDGROUSE	SYRRHAPTES PARADOXUS	BCI
PIGEONS	COLUMBIDAE	BC

DOMESTIC PIGEON	COLUMBA (DOMESTIC)	BCO
WOOD PIGEON	COLUMBA PALUMBUS	BCR
STOCK DOVE	COLUMBA OENAS	BCS
ROCK DOVE	COLUMBA LIVIA	BCT
COLLARED DOVE	STREPTOPELIA DECOACTO	BCU
PALM DOVE	STREPTOPELIA SENEGALENSIS	BCV
TURTLE DOVE	STREPTOPELIA TURTUR	BCW
PIGEON	COLUMBA SP.	BCX
CUCKOOS	CUCULIDAE	BCY
CUCKOO	CUCULUS CANORUS	BCZ
YELLOW-BILLED CUCKOO	COCYZUS AMERICANUS	BDA
BARN OWLS	TYTONIDAE	BDB
BARN OWL	TYTO ALBA	BDC
OWLS	STRIGIDAE	BDD
SNOWY OWL	NYCTEA SCANDIACA	BDE
EAGLE OWL	BUBO BUBO	BDF
LONG-EARED OWL	ASIO OTUS	BDG
SHORT-EARED OWL	ASIO FLAMMEUS	BDH
SCOPS OWL	OTUS SCOPS	BDI
TENGMALM'S OWL	AEGOLIUS FUNEREUS	BDJ
LITTLE OWL	ATHENE NOCTUA	BDK
PYGMY OWL	GLAUCIDIUM PASSERINUM	BDL
HAWK OWL	BURNIA ULULA	BDM
TAWNY OWL	STRIX ALUCO	BDN
URAL OWL	STRIX URALENSIS	BDO
GREAT GREY OWL	STRIX NEBULOSA	BDP
NIGHTJARS	CAPRIMULGIDAE	BDO
NIGHTJAR	CAPRIMULGUS EUROPAEUS	BDR
RED-NECKED NIGHTJAR	CAPRIMULGUS RUFICOLLIS	BDS
EYOPTIAN NIGHTJAR	CAPRIMULGUS AEGYPTIUS	BDT
SWIFTS	APODIDAE	BDU

PALLID SWIFT	APUS FALLIDUS	BDV
SWIFT	APUS APUS	BDW
ALPINE SWIFT	APUS MELBA	BDX
KINGFISHERS	ALCEDINIDAE	BDY
KINGFISHER	ALCEDO ATTHIS	BDZ
BEE-EATER	MEROPS APIASTER	BEA
ROLLERS	CORACIIDAE	BEB
ROLLER	CORACIAS GARRULUS	BEC
HOOPDES	UPUPIDAE	BED
HOOPDE	UPUPA EPOPS	BEE
WOODPECKERS	PICIDAE	BEF
WRYNECK	JYNX TORQUILLA	BEG
GREEN WOODPECKER	PICUS VIRIDIS	BEH
GREY-HEADED WOODPECKER	PICUS CANUS	BEI
BLACK WOODPECKER	DRYOCOPOUS MARTIUS	BEJ
GREAT SPOTTED WOODPECKER	DENDROCOPOUS MAJOR	BEK
SYRIAN WOODPECKER	DENDROCOPOUS SYRIACUS	BEL
MIDDLE SPOTTED WOODPECKER	DENDROCOPOUS MEDIUS	BEM
WHITE-BACKED WOODPECKER	DENDROCOPOUS LEUCOTOS	BEN
LESSER SPOTTED WOODPECKER	DENDROCOPOUS MINOR	BEO
THREE-TOED WOODPECKER	PICOIDES TRIDACTYLUS	BEP
LARKS	ALAUDIDAE	BEQ
DUPONTS LARK	CHERSOPHILUS DUPONTI	BER
SHORT-TOED LARK	CALANDRELLA CINEREA	BES
LESSER SHORT-TOED LARK	CALANURELLA RUFESCENS	BET
CALANDRA LARK	MELANOCORYPHA CALANDRA	BEU
WHITE-WINGED LARK	MELANOCORYPHA LEUCOPTERA	BEV
BLACK LARK	MELANOCORYPHA YELTONIENSIS	BEW
SHORE LARK	EREMOPHILA ALPESTRIS	BEX
CRESTED LARK	GALERIDA CRISTATA	BEY
THEKLA LARK	GALERIDA THEKLAE	BEZ

SKY LARK	ALAUDA ARVENSIS	BFA
SWALLOWS	HIRUNDINIDAE	BFB
SAND MARTIN	RIPARIA RIPARIA	BFC
CRAG MARTIN	HIRUNDO RUPESTRIS	BFD
SWALLOW	HIRUNDO RUSTICA	BFE
RED-RUMPED SWALLOW	HIRUNDO DAURICA	BFF
HOUSE MARTIN	DELICHON URBICA	BFG
PIPITS	MOTACILLIDAE	BFH
RICHARD'S PIPIT	ANTHUS NOVAESEELANDIAE	BFI
TAWNY PIPIT	ANTHUS CAMPESTRIS	BFJ
TREE PIPIT	ANTHUS TRIVIALIS	BFK
PECHORA PIPIT	ANTHUS GUSTAVI	BFL
MEADOW PIPIT	ANTHUS FRATENSIS	BFM
RED-THROATED PIPIT	ANTHUS CERVINUS	BFN
ROCK PIPIT	ANTHUS SPINOLETTA	BFO
YELLOW WAGTAIL	MOTACILLA FLAVA	BFP
GREY WAGTAIL	MOTACILLA CINEREA	BFQ
RIED WAGTAIL	MOTACILLA ALBA	BFR
SHRIKES	LANIIDAE	BFS
RED-BACKED SHRIKE	LANIUS COLLURIO	BFT
MASKED SHRIKE	LANIUS NUBICUS	BFU
WOODCHAT SHRIKE	LANIUS SENATOR	BFV
LESSER GREY SHRIKE	LANIUS MINOR	BFW
GREAT GREY SHRIKE	LANIUS EXCUBITOR	BFX
WAXWINGS	BOMBYCILLIDAE	BFY
WAXWING	BOMBYCILLA GARRULUS	BFZ
DIPPER	CINCLUS CINCLUS	BGA
WRENS	TROGLODYTIDAE	BGB
WREN	TROGLODYTES TROGLODYTES	BGC
ACCENTORS	PRUNELLIDAE	BGD
ALPINE ACCENTOR	PRUNELLA COLLARIS	BGE

DUNNOCK	FRUNELLA MODULARIS	BGF
WARBLERS	MUSCICAPIDAE	BGG
DETTI'S WARBLER	DETTIA DETTI	BGH
SAVI'S WARBLER	LOCUSTELLA LUSCINIODES	BGI
RIVER WARBLER	LOCUSTELLA FLUVIATILLIS	BGJ
PALLAS'S GRASSHOPPER WARBLER	LOCUSTELLA CETHIOLA	BGK
GRASSHOPPER WARBLER	LOCUSTELLA NAEVIA	BGL
LANCOLATED WARBLER	LOCUSTELLA LANCEOLATA	BGM
MOUTACHED WARBLER	ACROCEPHALUS MELANAPOGON	BGN
AQUATIC WARBLER	ACROCEPHALUS PALUDICOLA	BGO
SEDGE WARBLER	ACROCEPHALUS SCHOENOBANUS	BGP
BLUTH'S REED WARBLER	ACROCEPHALUS DUMETORUM	BGQ
MARSH WRBLER	ACROCEPHALUS PALUSTRIS	BGR
REED WARBLER	ACROCEPHALUS SCIRPACEUS	BGS
GREAT REED WARBLER	ACROCEPHALUS ARUNDINACEUS	BGT
ICTERINE WARBLER	HIPPOLAIS ICTERINA	BGU
MELODIOUS WARBLER	HIPPOLAIS POLYGLOTTA	BGV
OLIVE TREE WARBLER	HIPPOLAIS OLIVETORUM	BGW
OLIVACEOUS WARBLER	HIPPOLAIS PALLIDA	BGX
WARBLERS	SYLVIIDAE	BGY
BARRED WARBLER	SYLVIA NIGRIA	BGZ
GARDEN WARBLER	SYLVIA BORIN	BHA
BLACKCAP	SYLVIA ATRICAPILLA	BHB
WHITETHROAT	SYLVIA COMMUNIS	BHC
LESSER WHITETHROAT	SYLVIA CURRUCA	BHD
RUPPELL'S WARBLER	SYLVIA RUPPELLI	BHE
SARDINIAN WARBLER	SYLVIA MELANOECEPHALA	BHF
SUBALPINE WARBLER	SYLVIA CANTILLANS	BHG
SPECTACLED WARBLER	SYLVIA CONSPICILLATA	BHH
DARTFORD WARBLER	SYLVIA UNDATA	BHI
MARMOR'S WARELER	SYLVIA SARDA	BHJ

WILLOW WARBLER	PHYLLOSCOPUS TROCHILUS	BHK
CHIFFCHAFF	PHYLLOSCOPUS COLLYBITA	BHL
BONELLI'S WARBLER	PHYLLOSCOPUS BONELLI	BHM
WOOD WARBLER	PHYLLOSCOPUS SIBILATRIX	BHN
YELLOW-BROWN WARBLER	PHYLLOSCOPUS INORNATUS	BHO
PALLAS'S LEAF WARBLER	PHYLLOSCOPUS PROREGULUS	BHP
ARCTIC WARBLER	PHYLLOSCOPUS BOREALIS	BHQ
GREENISH WARBLER	PHYLLOSCOPUS TROCHILOIDES	BHR
GOLDCREST	REGULUS REGULUS	BHS
FIRECREST	REGULUS IGNICAPILLUS	BHT
RED-BREASTED FLYCATCHER	FICEDULA PARVA	BHU
SPOTTED FLYCATCHER	MUSCICAPA STRIATA	BHV
WHINCHAT	SAXICOLA RUBETRA	BHW
STONECHAT	SAXICOLA TORQUATA	BHX
WHEATEAR	OENANTHE OENANTHE	BHY
PIED WHEATEAR	OENANTHE PLESCHANKA	BHZ
DESERT WHEATEAR	OENANTHE DESERTI	BIA
ISABELLINE WHEATEAR	OENANTHE ISABELLINA	BIB
BLACK WHEATEAR	OENANTHE LEUCURA	BIC
RUFIOUS BUSH CHAT	CERDOTRICHAS GALACTOTES	BID
ROCK THRUSH	MONTICOLA SAXATILIS	BIE
BLUE ROCK THRUSH	MONTICOLA SOLITARIUS	BIF
BLACK REDSTART	PHOENICURUS OCHRURUS	BIG
REDSTART	PHOENICURUS PHOENICURUS	BIH
ROBIN	ERITHACUS RUBECULA	BII
NIGHTINGALE	LUSCINIA MEGARHYNCHOS	BIJ
THRUSH NIGHTINGALE	LUSCINIA LUSCINIA	BIK
BLUETHROAT	LUSCINIA SUECICA	BIL
RED-FLANKED BLUE TAIL	TARSIGER CYANURUS	BIM
OLIVE-BACKED THRUSH	CATHARUS USTULATUS	BIN
THRUSHES	TURDIDAE	BIO

EYE-BROWED THRUSH	TURDUS OBSCURUS	BIP
BLACK-THROATED THRUSH	TURDUS RUFICOLLIS	BIO
DUSKY THRUSH	TURDUS EUNOMUS	BIR
NAUMANN'S THRUSH	TURDUS NAUMANNI	BIS
FIELDFARE	TURDUS PILARIS	BIT
RING OUZEL	TURDUS TORQUATUS	BIU
AMERICAN ROBIN	TURDUS MIGRATORIUS	BIV
BLACKBIRD	TURDUS MERULA	BIW
SIBERIAN THRUSH	TURDUS SIBIRICUS	BIX
REDWING	TURDUS ILIACUS	BIY
SONG THRUSH	TURDUS PHILOMELOS	BIZ
WHITE'S THRUSH	ZOOTHERA DAUMA	BJA
BEARDED REEDLING	PANURUS BIARMICUS	BJB
TITS	PARIDAE	BJC
LONG-TAILED TIT	AEGITHALOS CAUDATUS	BJD
MARSH TIT	PARUS PALUSTRIS	BJE
WILLOW TIT	PARUS MONTANUS	BJF
SOMBRE TIT	PARUS LUGUBRIS	BJG
SIBERIAN TIT	PARUS CINCTUS	BJH
CRESTED TIT	PARUS CRISTATUS	BJI
COAL TIT	PARUS ATER	BJJ
BLUE TIT	PARUS CAERULEUS	BJK
AZURE TIT	PARUS CYANUS	BJL
GREAT TIT	PARUS MAJOR	BJM
PENDULINE TIT	REMIZ PENDULINUS	BJN
NUTHATCHES	SITTIDAE	BJO
NUTHATCH	SITTA EUROPAEA	BJP
CORSICAN NUTHATCH	SITTA WHITEHEADI	BJQ
ROCK NUTHATCH	SITTA NEUMAYER	BJR
WALL CREEPER	TICHOEDROMA MURARIA	BJS
TREE CREEPERS	CERTHIIDAE	BJT

TREE CREEPER	CERTHIA FAMILIARIS	BJU
SHORT-TOED TREE CREEPER	CERTHIA BRACHYDACTYLA	BJV
BUNTINGS	EMBERIZIDAE	BJW
CORN BUNTING	EMBERIZA CALANDRA	BJX
YELLOW HAMMER	EMBERIZA CITRINELLA	BJY
ROCK BUNTING	EMBERIZA CIA	BJZ
ORTOLAN BUNTING	EMBERIZA HORTULANA	BKA
GRETZSCHMAR'S BUNTING	EMBERIZA CAESIA	BKB
GIRL BUNTING	EMBERIZA CIRLUS	BKC
LITTLE BUNTING	EMBERIZA PUSILLA	BKD
RUSTIC BUNTING	EMBERIZA RUSTICA	BKE
YELLOW-BREASTED BUNTING	EMBERIZA AUREOLA	BKF
BLACK-HEADED BUNTING	EMBERIZA MELANOCEPHALA	BKG
REED BUNTING	EMBERIZA SCHOENICLUS	BKH
LAPLAND BUNTING	CALCARIUS LAPPONICUS	BKI
SNOW BUNTING	PLECTROPHENAX NIVALIS	BKJ
FINCHES	FRINGILLIDAE	BKK
CHAFFINCH	FRINGILLA COELEBS	BKL
BRAMBLING	FRINGILLA MONTIFRINGILLA	BKM
CITRIL FINCH	SERINUS CITRINELLA	BKN
SERIN	SERINUS SERINUS	BKO
GREENFINCH	CARDUELIS CHLORIS	BKP
SISKIN	CARDUELIS SPINUS	BKQ
GOLDFINCH	CARDUELIS CARDUELIS	BKR
TWITE	ACANTHIS FLAVIROSTRIS	BKS
LINNET	ACANTHIS CANNABINA	BKT
REDPOLL	ACANTHIS FLAMMEA	BKU
ARCTIC REDPOLL	ACANTHIS HORNEMANNI	BKV
TRUMPETER BULLFINCH	RHODOPACHYS GITHAGINEA	BKW
COMMON ROSEFINCH	CARPODacus ERYTHRINUS	BKX
PINE GROSBEEK	PINICOLA ENUCLEATOR	BKY

CROSSBILL	LOXIA CURVIROSTRA	BKZ
TWO-BARRED CROSSBILL	LOXIA LEUCOPTERA	BLA
BULLFINCH	PYRRHULA PYRRHULA	BLB
HAWFINCH	COCCOTHRAUSTES COCCOTHRAUSTES	BLC
SPARROWS	PLOCEIDAE	BLD
HOUSE SPARROW	PASSER DOMESTICUS	BLE
SPANISH SPARROW	PASSER HISPANIOLENSIS	BLF
TREE SPARROW	PASSER MONTANUS	BLG
ROCK SPARROW	PASSER PETRONIA	BLH
SNOW SPARROW	MONTIFRINGILLA NIVALIS	BLI
STARLINGS	STURNIDAE	BLJ
ROSE-COLOURED STARLING	STURNUS ROSEUS	BLK
STARLING	STURNUS VULGARIS	BLL
SPOTLESS STARLING	STURNUS UNICOLOR	BLM
ORIOLES	ORIOLIDAE	BLN
GOLDEN ORIOLE	ORIOLUS ORIOLUS	BLO
CROWS	CORVIDAE	BLP
SIBERIAN JAY	PERISOREUS INFAUSTUS	BLQ
JAY	GARRULUS GLANDARIUS	BLR
AZURE-WINGED MAGPIE	CYANOPICA CYANUS	BLS
MAGPIE	PICA PICA	BLT
NUCERACKER	NUCIFRAGA CARYOCATACTES	BLU
CHOUGH	PYRRHOCORAX PYRRHOCORAX	BLV
ALPINE CHOUGH	PYRRHOCORAX GRACULUS	BLW
JACKDAW	CORVUS MONEDULA	BLX
ROOK	CORVUS FRUGILEGUS	BLY
CARRION CROW	CORVUS CORONE	BLZ
RAVEN	CORVUS CORAX	BM
COMMON BUZZARD	BUTEO BUTEO	BM
FROG/TOAD	RANA SP /BUFO SP	BN
UNIDENTIFIED SMALL MAMMAL	RODENTIAE	BN

DOMESTIC DUCK/MALLARD	ANAS SP	BME
DUCK	ANAS SP.	BMF
HERRING	CLUPEA HERENGUS	BMG
DAB	LIMANDA LIMANDA	BMH
NORWAY HADDOCK	SEBASTES VIVIPARUS	BMI
RAT	RATTUS SP.	BMJ
COD GROUP	GADUS SP	BMK
DOG/FOX	CANIS SP. /VULPES SP	BML
PLAICE/FLOUNDER	PLEURONECTES SP. /PLATICHTHYS SP.	BMM

MEASUREMENTS AVAILABLE FOR EACH CURRENT ANATOMY

KEY

===

CODE=INPUT CODE BY RECORDER

ORDER=ARCHIVAL CODE AND PRINTING POSITION

COLS=NUMBER OF MEASUREMENTS TO A LINE AT INPUT

ROWS=NUMBER OF LINES OF MEASUREMENT AT INPUT

TOTAL=TOTAL NUMBER OF MEASUREMENTS

DEFINITION=DEFINITION OF MEASUREMENT

* IN MEASUREMENTS=NOT USED

*WH IN MEASUREMENTS=WITHERS HEIGHT

WITHERS HEIGHT FORMULAE AVAILABLE FROM A.M.L.

SKULL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
SKL	1	5	4	20	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20

MANDIBLE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
JAW	2	5	4	20	CB,H1,H2,H3,L1,L2,L3,L4,TL,PHL,ML,DL,1,2,3,4,5,6,M3L,CRL

SCAPULA

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
SCAP	3	5	2	10	PB,NB,ND,GB,GD,GC,L,DHA

CLAVICLE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
CLAV	4	1	1	1	L

HUMERUS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
HUM	5	5	2	10	L1,L2,PB,PD,DB,DD,BD,SD,CL,LT,*WH

RADIUS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
RAD	6	6	2	12	L,PB,PD,NB,MD,DB,DD,PJB,DJB,LL,SD,GLL,*WH

ULNA

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
ULN	7	4	1	4	OL,NB,L,SDO,*WH

CARPALBONE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
CAR	8	1	1	1	L

CARPAL 1

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
CARA	9	1	1	1	L

CARPAL 2

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
CARB	10	1	1	1	L

CARPAL 3

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
CARC	11	1	1	1	L

CARPAL 4

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
CARD	12	1	1	1	L

CARPAL5

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
CARE	13	1	1	1	L

INTERMEDIATE CARPAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
CARF	14	1	1	1	L

RADIAL CARPAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
CARG	15	1	1	1	L

ULNAR CARPAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
CARH	16	1	1	1	L

ACCESSORY CARPAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
CARI	17	1	1	1	L

QUADRILATERAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
QUAD	18	1	1	1	L

FIRST METACARPAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MCA	19	1	1	1	L

SECOND METACARPAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MCB	20	1	1	1	L

THIRD METACARPAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MCC	21	4	1	4	GL,BP,BD,B

FOURTH METACARPAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MCD	22	4	1	4	GL,BP,BD,B

FIFTH METACARPAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MCE	23	1	1	1	L

SIXTH METACARPAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MCF	24	1	1	1	L

LATERAL METACARPAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MCG	25	1	1	1	L

MEDIAL METACARPAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MCH	26	1	1	1	L

THIRD AND FOURTH METACARPAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MC	27	8	2	16	L,PB,PD,MB,MD,DB,MDD1,MDD2,LDD1,LDD2,WMC,WLC,DD,DFB,DFD,LL,*WH

LONG BONE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
LBOM	28	1	1	1	L

FIRST PHALANX

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
APH	29	6	2	12	LL,PB,PD,MB,MD,DB,MDD,LDD,BFP,BFD,CLPE

SECOND PHALANX

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
BPH	30	6	2	12	LL,PB,PD,MB,MD,DB,MDD,LDD,BFP,BFD,CLPE

THIRD PHALANX

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
CPH	31	5	1	5	L1,L2,PB,PD.*

SESAMOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
SES	32	1	1	1	L

PROXIMAL SESAMOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
PSES	33	1	1	1	L

DISTAL SESAMOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DSES	34	1	1	1	L

OS COXAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
OC	35	5	4	20	A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S,T

OSSA COXARUM

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
OSC	36	5	4	20	A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S,T

ILIUM

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
ILM	37	2	1	2	I,P

ISCHIUM

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
ISH	38	6	1	6	E,G,H,J,N,O

PURIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
PUB	39	2	1	2	K,*

ACETABULUM

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
ACET	40	6	1	6	L,M,S,T,*,*

FEMUR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FEM	41	5	2	10	L1,L2,DB,LCW,PCW,DD,MB,MD,MO,HT,*WH

PATELLA

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
PAT	42	2	1	2	GL,GB

TIRIA

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
TIR	43	5	2	10	L1,L2,PR,PD,MB,MD,DB,DD,LL,*,*WH

FIBULA

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FIB	44	1	1	1	L

CALCANEUS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
CAL	45	6	2	12	L1,L2,L3,PR,PD,AB1,AB2,AD1,AD2,AD3,AD4,LDF,*WH

TALUS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
AST	46	8	1	8	A,B,C,D,E,GB,GH,RFD

FIRST TARSAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
TARA	47	1	1	1	L

SECOND TARSAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
TARB	48	1	1	1	L

THIRD TARSAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
TARC	49	1	1	1	L

FOURTH TARSAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
TARD	50	1	1	1	L

FIFTH TARSAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
TARE	51	1	1	1	L

CENTRAL TARSAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
CENT	52	1	1	1	L

FUSED FIRST AND SECOND TARSAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
TARF	53	1	1	1	L

FUSED SECOND AND THIRD TARSAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
TARG	54	1	1	1	L

CENTROQUARTAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
CQ	55	1	1	1	L

FIRST METATARSAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MTA	56	1	1	1	L

SECOND METATARSAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MTB	57	1	1	1	L

THIRD METATARSAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MTC	58	4	1	4	GL,BP,BD,B

FOURTH METATARSAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MTD	59	4	1	4	GL,BP,BD,B

FIFTH METATARSAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MTE	60	1	1	1	L

SIXTH METATARSAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MTF	61	1	1	1	L

FUSED THIRD AND FOURTH METATARSAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MT	62	8	2	16	L,PE,PD,MB,MD,DB,MDD1,MDD2,LDD1,LDD2,WPC,WLC,DD,DFB,DFD,LL,

CRANIUM

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
CRAN	63	6	1	6	A,B,C,D,E,F

OCCIPITAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
OCIP	64	6	1	6	A,B,C,D,E,F

SPHENOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
SPH	65	2	1	2	L,R

BASISPHENOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
BSPH	66	2	1	2	L,R

PRESPHENOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
PSPH	67	2	1	2	L,R

ETHMOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
ETH	68	2	1	2	L,R

TURBINATES

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
TURB	69	1	1	1	L

INTERPARIETAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
INPR	70	1	1	1	L

PARIETAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
PAR	71	2	1	2	L,B

FRONTAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FRNT	72	2	1	2	L,B

TEMPORAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
TEMP	73	2	1	2	L,B

PETROUS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
PET	74	1	1	1	L

VOMER

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VOM	75	1	1	1	L

MAXILLA

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MAX	76	5	1	5	A,B,C,D,E

INCISIVE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
INC	77	2	1	2	L,B

PALATINE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
PAL	78	2	1	2	L,B

PTERYGOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
PTRY	79	1	1	1	L

NASAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
NAS	80	1	1	1	L

LACRIMAL

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
LAC	81	2	1	2	L,B

ZYGOMATIC

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
ZYG	82	1	1	1	L

VENTRAL NASAL CONCHAL

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VNC	83	1	1	1	L

HORN CORE

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
HC	84	4	1	4	A,B,C,D

ANTLER

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
ANT	85	5	1	5	A,B,C,D,E

ANTLER TIME

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
ATT	86	2	1	2	A,B

MALLEUS

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MAL	87	1	1	1	L

INCUS

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
ICUS	88	1	1	1	L

STAPES

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
STAP	89	1	1	1	L

FACIAL AREA

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FACE	90	5	1	5	A,B,C,D,E

OS PENIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
RAC	91	1	1	1	L

RIB

===

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
RIB	92	1	1	1	L

CERVICAL VERTEBRAE (NUMBER UNKNOWN)

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VC	93	1	1	1	L

ATLAS VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VC01	94	6	1	6	GB, GL, BFCK, BFCD, GLF, H

AXIS VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VC02	95	1	1	1	L

THIRD CERVICAL VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VC03	96	1	1	1	L

FOURTH CERVICAL VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VC04	97	1	1	1	L

FIFTH CERVICAL VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VC05	98	1	1	1	L

SIXTH CERVICAL VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VC06	99	1	1	1	L

SEVENTH CERVICAL VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VC07	100	1	1	1	L

EIGHTH CERVICAL VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VC08	101	1	1	1	L

THORACIC VERTEBRAE (NUMBER UNKNOWN)

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VT	102	1	1	1	L

FIRST THORACIC VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VT01	103	1	1	1	L

SECOND THORACIC VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VT02	104	1	1	1	L

THIRD THORACIC VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VT03	105	1	1	1	L

FOURTH THORACIC VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VT04	106	1	1	1	L

FIFTH THORACIC VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VT05	107	1	1	1	L

SIXTH THORACIC VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VT06	108	1	1	1	L

SEVENTH THORACIC VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VT07	109	1	1	1	L

EIGHTH THORACIC VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VT08	110	1	1	1	L

NINTH THORACIC VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VT09	111	1	1	1	L

TENTH THORACIC VERTEBRAE

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VT10	112	1	1	1	L

ELEVENTH THORACIC VERTEBRAE

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VT11	113	1	1	1	L

TWELFTH THORACIC VERTEBRAE

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VT12	114	1	1	1	L

THIRTEENTH THORACIC VERTEBRAE

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VT13	115	1	1	1	L

FOURTEENTH THORACIC VERTEBRAE

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VT14	116	1	1	1	L

FIFTEENTH THORACIC VERTEBRAE

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VT15	117	1	1	1	L

SIXTEENTH THORACIC VERTEBRAE

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VT16	118	1	1	1	L

SEVENTEENTH THORACIC VERTEBRAE

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VT17	119	1	1	1	L

EIGHTEENTH THORACIC VERTEBRAE

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VT18	120	1	1	1	L

NINETEENTH THORACIC VERTEBRAE

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VT19	121	1	1	1	L

TWENTIETH THORACIC VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VT20	122	1	1	1	L

LUMBAR VERTEBRAE (NUMBER UNKNOWN)

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VL	123	1	1	1	L

FIRST LUMBAR VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VL01	124	1	1	1	L

SECOND LUMBAR VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VL02	125	1	1	1	L

THIRD LUMBAR VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VL03	126	1	1	1	L

FOURTH LUMBAR VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VL04	127	1	1	1	L

FIFTH LUMBAR VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VL05	128	1	1	1	L

SIXTH LUMBAR VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VL06	129	1	1	1	L

SEVENTH LUMBAR VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VL07	130	1	1	1	L

EIGHTH LUMBAR VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VL08	131	1	1	1	L

NINTH LUMBAR VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VL09	132	1	1	1	L

TENTH LUMBAR VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VL10	133	1	1	1	L

ELEVENTH LUMBAR VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VL11	134	1	1	1	L

COMPLETE SACRUM

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VSA	135	1	1	1	L

SACRAL VERTEBRAE (NUMBER UNKNOWN)

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VSB	136	1	1	1	L

FIRST SACRAL VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VS01	137	1	1	1	L

SECOND SACRAL VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VS02	138	1	1	1	L

THIRD SACRAL VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VS03	139	1	1	1	L

FOURTH SACRAL VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VS04	140	1	1	1	L

FIFTH SACRAL VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VS05	141	1	1	1	L

SIXTH SACRAL VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VS06	142	1	1	1	L

SEVENTH SACRAL VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VS07	143	1	1	1	L

EIGHTH SACRAL VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VS08	144	1	1	1	L

NINTH SACRAL VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VS09	145	1	1	1	L

CAUDAL VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VD	146	1	1	1	L

VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
VX	147	1	1	1	L

MANUBRIUM

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MAN	148	1	1	1	L

FIRST STERNEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
ST01	149	1	1	1	L

SECOND STERNEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
ST02	150	1	1	1	L

THIRD STERNEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
ST03	151	1	1	1	L

FOURTH STERNEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
ST04	152	1	1	1	L

FIFTH STERNEBRAE

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
ST05	153	1	1	1	L

SIXTH STERNEBRAE

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
ST06	154	1	1	1	L

SEVENTH STERNEBRAE

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
ST07	155	1	1	1	L

EIGHTH STERNEBRAE

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
ST08	156	1	1	1	L

XIPHOID PROCESS

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
XIP	157	1	1	1	L

SUPRAGLENOID TUBERCLE

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
SUPT	158	1	1	1	L

HUMERUS PROXIMAL EPIPHYSIS

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
PEH	159	1	1	1	L

HUMERUS GREATER TUBERCLE

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
GTH	160	1	1	1	L

HUMERUS DISTAL EPIPHYSIS

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DEH	161	1	1	1	L

HUMERUS MEDIAL EPICONDYLE

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MEH	162	1	1	1	L

RADIUS PROXIMAL EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
PER	163	1	1	1	L

RADIUS DISTAL EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DER	164	1	1	1	L

ULNA PROXIMAL EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
PEU	165	1	1	1	L

ULNA DISTAL EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DEU	166	1	1	1	L

METACARPAL PROXIMAL EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
PENC	167	1	1	1	L

METACARPAL DISTAL EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DENC	168	1	1	1	L

FIRST PHALANX PROXIMAL EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
PEAP	169	1	1	1	L

FIRST PHALANX DISTAL EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DEAP	170	1	1	1	L

SECOND PHALANX PROXIMAL EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
PEBP	171	1	1	1	L

SECOND PHALANX DISTAL EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DEBP	172	1	1	1	L

FEMUR PROXIMAL EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
PEF	173	1	1	1	L

FEMUR GREATER TROCHANTER

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
GTF	174	1	1	1	L

FEMUR DISTAL EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DEF	175	1	1	1	L

TIBIA PROXIMAL EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
PETB	176	1	1	1	L

TIBIAL TUBEROSITY

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
TT	177	1	1	1	L

TIBIA DISTAL EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DET	178	1	1	1	L

FIBULA PROXIMAL EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
PEFB	179	1	1	1	L

FIBULA DISTAL EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DEFB	180	1	1	1	L

CALCANEAL TUBER EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
CTE	181	1	1	1	L

METATARSAL PROXIMAL EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
PENT	182	1	1	1	L

METATARSAL DISTAL EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DENT	183	1	1	1	L

HYOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
HYD	184	1	1	1	L

BASIHYOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
BHYD	185	1	1	1	L

THYRONHYOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
THYD	186	1	1	1	L

CERATOHYOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
CHYD	187	1	1	1	L

EPINHYOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
EHYD	188	1	1	1	L

STYLOHYOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
SHYD	189	1	1	1	L

TYMPANOHYOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
TYD	190	1	1	1	L

CRICOID CARTILAGE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
CRI	191	1	1	1	L

THYROID CARTILAGE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
THY	192	1	1	1	L

ARYTENOID CARTILAGE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
ARY	193	1	1	1	L

EPIGLOTTIC CARTILAGE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
EPR	194	1	1	1	L

SKULL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
BSK	195	5	1	5	GL,GB,GBP,GH,SHD

MANDIBLE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
BMJ	196	1	1	1	GL

QUADRATE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
BQD	197	1	1	1	L

PREMAXILLA

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
BEAK	198	1	1	1	L

CRANIUM

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
BONS	199	1	1	1	L

CORACOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
BCD	200	4	1	4	GL,LM,BB,BF

FURCULA

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
BFR	201	2	1	2	A,F

SCAPULA

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
BSP	202	2	1	2	GL,DIC

HUMERUS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
BHM	203	4	1	4	GL,BP,BD,SC

RADIUS

=====

	CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
	BRD	204	4	1	4	GL,BD,SC,*
ULNA						
=====						
	CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
	BUN	205	4	1	4	GL,D,BP,SC
RADIALE						
=====						
	CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
	BCRP	206	1	1	1	L
ULNARE						
=====						
	CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
	BWRST	207	1	1	1	L
CARPOMETACARPUS						
=====						
	CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
	BTM	208	5	1	5	GL,L,KP,DID,BS
STERNUM						
=====						
	CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
	BST	209	5	1	5	LC,E,LM,DL,SBF
OS COXA						
=====						
	CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
	BCC	210	4	1	4	LV,LS,DIA,BA
FEMUR						
=====						
	CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
	BFM	211	8	1	8	GL,BP,BD,SC,LM,DP,DD,*
TIBIOTARSUS						
=====						
	CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
	BTB	212	8	1	8	GL,DIP,BD,SC,LA,DD,KP,*
TARSOMETATARSUS						
=====						
	CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
	BMT	213	5	1	5	GL,BP,BD,AL,SC
SYNSACRUM						
=====						
	CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
	BSS	214	1	1	1	L

SPUR CORE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
SPUR	215	1	1	1	L

OTOLITH

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
OTO	216	2	1	2	L,B

SCALE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
SCAL	217	2	1	2	L,B

PROATLAS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
PRO	218	1	1	1	L

WEBERIAN VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
WEB	219	1	1	1	L

PRECAUDAL VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
PCV	220	1	1	1	L

PENULTIMATE VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
PUV	221	1	1	1	L

ULTIMATE VERTEBRAE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
UV	222	1	1	1	L

HYOMANDIBULAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FHY	223	1	1	1	L

SYMPLECTIC

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FSY	224	1	1	1	L

QUADRATE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FQD	225	1	1	1	L

PTERYGOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FPTB	226	1	1	1	L

PALATINE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FPLA	227	1	1	1	L

MESOPTERYGOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FMT	228	1	1	1	L

METAPTERYGOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FGO	229	1	1	1	L

PREDOPERCULUM

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FPO	230	1	1	1	L

OPERCULUM

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FOPA	231	1	1	1	L

SUBOPERCULUM

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FSD	232	1	1	1	L

INTEROPERCULUM

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FIO	233	1	1	1	L

ARTICULAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FA	234	1	1	1	L

ANGULAR

=====

	CODE FAM	ORDER 235	COLS 1	ROWS 1	TOTAL 1	DEFINITION L
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DENTARY
=====

	CODE FD	ORDER 236	COLS 1	ROWS 1	TOTAL 1	DEFINITION L
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MAXILLARY
=====

	CODE FMX	ORDER 237	COLS 1	ROWS 1	TOTAL 1	DEFINITION L
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PREMAXILLARY
=====

	CODE FPX	ORDER 238	COLS 1	ROWS 1	TOTAL 1	DEFINITION L
--	-------------	--------------	-----------	-----------	------------	-----------------

INERHYAL
=====

	CODE FIN	ORDER 239	COLS 1	ROWS 1	TOTAL 1	DEFINITION L
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EPIHYAL
=====

	CODE FEH	ORDER 240	COLS 1	ROWS 1	TOTAL 1	DEFINITION L
--	-------------	--------------	-----------	-----------	------------	-----------------

CERATOHYAL
=====

	CODE FCT	ORDER 241	COLS 1	ROWS 1	TOTAL 1	DEFINITION L
--	-------------	--------------	-----------	-----------	------------	-----------------

BASIHyal
=====

	CODE FBH	ORDER 242	COLS 1	ROWS 1	TOTAL 1	DEFINITION L
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GLOSSOHYAL
=====

	CODE FGOS	ORDER 243	COLS 1	ROWS 1	TOTAL 1	DEFINITION L
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UROHYAL
=====

	CODE FUR	ORDER 244	COLS 1	ROWS 1	TOTAL 1	DEFINITION L
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BRANCHIOSTEGAL
=====

	CODE FERN	ORDER 245	COLS 1	ROWS 1	TOTAL 1	DEFINITION L
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SUPRACORBITAL

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FOR	246	1	1	1	L

PREORBITAL

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FFOR	247	1	1	1	L

SUBORBITAL

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FSOR	248	1	1	1	L

NASAL

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FN	249	1	1	1	L

SUPRA-TEMPORAL

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FST	250	1	1	1	L

POSTTEMPORAL

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FPTA	251	1	1	1	L

SUPRACLAVICLE

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FSC	252	1	1	1	L

CLAVICAL

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FCL	253	1	1	1	L

POSTCLAVICLE

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
PPC	254	1	1	1	L

HYPERCORACOID

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FHC	255	1	1	1	L

HYPOCORACOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FHCO	256	1	1	1	L

ACTINOSTS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FAC	257	1	1	1	L

PECTORAL RAYS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FPRY	258	1	1	1	L

PELVIC GIRDLE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FPG	259	1	1	1	L

VENTRAL SPINES

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FVS	260	1	1	1	L

MESOCORACOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FMC	261	1	1	1	L

BASIBRANCHIALS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FB8	262	1	1	1	L

HYPOBRANCHIALS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FHB	263	1	1	1	L

CERATOBANCHIALS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FCB	264	1	1	1	L

EPIBRANCHIALS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FEB	265	1	1	1	L

SUSPENSORY PHARYNGEAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FSP	266	1	1	1	L

SUPERIOR PHARYNGEALS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FPHA	267	1	1	1	L

INFERIOR PHARYNGEALS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FIP	268	1	1	1	L

GILL RAKERS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FGR	269	1	1	1	L

VOMER

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FV	270	1	1	1	L

ETHMOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FET	271	1	1	1	L

PREFRONTAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FPF	272	1	1	1	L

FRONTAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FF	273	5	1	5	L

SPHENOTIC

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FPH	274	1	1	1	L

PARIETAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FPL	275	1	1	1	L

EPIOTIC

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FOT	276	1	1	1	L

SUPRACCCIPITAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FSOC	277	1	1	1	L

PTEROTIC

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FPT	278	1	1	1	L

OPISTHOTIC

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FOP	279	1	1	1	L

EXOCCIPITAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FEX	280	1	1	1	L

BASIOCCIPITAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FBOC	281	1	1	1	L

PARASPHENOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FPAF	282	1	1	1	L

PROTIC

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FPRO	283	1	1	1	L

ALISPHENOID

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FAL	284	1	1	1	L

FIN RAYS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FRAY	285	1	1	1	L

LOWER FIRST INCISOR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
LI1	286	1	1	1	L

LOWER SECOND INCISOR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
LI2	287	1	1	1	L

LOWER THIRD INCISOR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
LI3	288	1	1	1	L

LOWER FOURTH INCISOR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
LI4	289	1	1	1	L

LOWER CANINE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
LC	290	1	1	1	L

LOWER FIRST PREMOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
LPM1	291	1	1	1	L

LOWER SECOND PREMOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
LPM2	292	1	1	1	L

LOWER THIRD PREMOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
LPM3	293	1	1	1	L

LOWER FOURTH PREMOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
LPM4	294	1	1	1	L

LOWER FIRST MOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
LM1	295	1	1	1	L

LOWER SECOND MOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
LM2	296	1	1	1	L

LOWER THIRD MOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
LM3	297	2	1	2	L,R

UPPER FIRST INCISOR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
UI1	298	1	1	1	L

UPPER SECOND INCISOR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
UI2	299	1	1	1	L

UPPER THIRD INCISOR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
UI3	300	1	1	1	L

UPPER FOURTH INCISOR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
UI4	301	1	1	1	L

UPPER CANINE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
UC	302	1	1	1	L

UPPER FIRST PREMOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
UPM1	303	1	1	1	L

UPPER SECOND PREMOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
UPM2	304	1	1	1	L

UPPER THIRD PREMOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
UPM3	305	1	1	1	L

UPPER FOURTH PREMOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
UPM4	306	1	1	1	L

UPPER FIRST MOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
UM1	307	1	1	1	L

UPPER SECOND MOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
UM2	308	1	1	1	L

UPPER THIRD MOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
UM3	309	2	1	2	L,B

DECIDUOUS LOWER FIRST INCISOR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DLI1	310	1	1	1	L

DECIDUOUS LOWER SECOND INCISOR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DLI2	311	1	1	1	L

DECIDUOUS LOWER THIRD INCISOR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DLI3	312	1	1	1	L

DECIDUOUS LOWER FOURTH INCISOR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DLI4	313	1	1	1	L

DECIDUOUS LOWER CANINE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DLC	314	1	1	1	L

DECIDUOUS LOWER FIRST PREMOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DLP1	315	1	1	1	L

DECIDUOUS LOWER SECOND PREMOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DLP2	316	1	1	1	L

DECIDUOUS LOWER THIRD PREMOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DLP3	317	1	1	1	L

DECIDUOUS LOWER FOURTH PREMOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DLP4	318	1	1	1	L

DECIDUOUS LOWER FIRST MOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DLM1	319	1	1	1	L

DECIDUOUS UPPER FIRST INCISOR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DUI1	320	1	1	1	L

DECIDUOUS UPPER SECOND INCISOR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DUI2	321	1	1	1	L

DECIDUOUS UPPER THIRD INCISOR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DUI3	322	1	1	1	L

DECIDUOUS UPPER FOURTH INCISOR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DUI4	323	1	1	1	L

DECIDUOUS UPPER CANINE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DUC	324	1	1	1	L

DECIDUOUS UPPER FIRST PREMOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DUP1	325	1	1	1	L

DECIDUOUS UPPER SECOND PREMOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DUP2	326	1	1	1	L

DECIDUOUS UPPER THIRD PREMOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DUP3	327	1	1	1	L

DECIDUOUS UPPER FOURTH PREMOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DUP4	328	1	1	1	L

DECIDUOUS UPPER FIRST MOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DUM1	329	1	1	1	L

FRAGMENT UNIDENTIFIED

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
FRAG	330	1	1	1	L

LONG BONE FRAGMENT

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
LFRAG	331	1	1	1	L

SKULL FRAGMENT

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
SFRAG	332	1	1	1	L

ANTLER PEDICLE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
AMP	333	1	1	1	L

TRACHEAL RINGS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
RING	334	1	1	1	L

UPPER TOOTH

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
UP	335	1	1	1	L

LOWER TOOTH

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DN	336	1	1	1	L

DENTICLES

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DENT	337	1	1	1	L

LOWER PREMOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
LPM	338	1	1	1	L

LOWER MOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
LM	339	1	1	1	L

UPPER PREMOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
UPM	340	1	1	1	L

UPPER MOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
UM	341	1	1	1	L

DECIDUOUS LOWER PREMOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DLP	342	1	1	1	L

DECIDUOUS LOWER INCISOR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DLI	343	1	1	1	L

DECIDUOUS UPPER PREMOLAR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DUP	344	1	1	1	10,11,14,16,17

DECIDUOUS UPPER INCISOR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DUI	345	1	1	1	L

LOWER INCISOR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
LI	346	1	1	1	L

UPPER INCISOR

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
UI	347	1	1	1	L

METAPODIAL DISTAL EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DEMP	348	1	1	1	L

THIRD METAPODIAL DISTAL EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DEMP3	349	1	1	1	L

FOURTH METAPODIAL DISTAL EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DEMP4	350	1	1	1	L

LATERAL METAPODIAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MPG	351	1	1	1	L

LATERAL METAPODIAL DISTAL EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
DEMPG	352	1	1	1	L

METAPODIAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MP	353	1	1	1	L

LATERAL METATARSAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MTG	354	1	1	1	L

MEDIAL METATARSAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MTH	355	1	1	1	L

MEDIAL METAPODIAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
MPH	356	1	1	1	L

FUSED SECOND+THIRD CARPAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
CAR3	357	1	1	1	L

COSTAL CARTILAGE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
CC	358	1	1	1	L

VERTEBRAL EPIPHYSIS

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
EVX	359	1	1	1	L

TOOTH FRAGMENT

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
TERAG	360	1	1	1	L

TARSAL

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
TAR	361	1	1	1	L

FIRST PHALANX FORE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
APMF	362	6	2	12	LL,PE,PD,MB,MD,DB,MDD,LDD,BFP,RFD,CLPE

FIRST PHALANX HIND

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
APMH	363	6	2	12	L,PE,PD,MB,MD,DB,DD,PJB,DJB,LL,SD,CLL,OL,NB,L,SDO

RADIUS AND ULNA FUSED

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
R+U	364	8	2	16	L

WING PHALANX

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
BDA	365	1	1	1	L

FOOT PHALANX

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
BDP	366	1	1	1	L

PYGOSTYLE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
BPYG	367	1	1	1	L

UROSTYLE

=====

CODE	ORDER	COLS	ROWS	TOTAL	DEFINITION
URO	368	1	1	1	L

CODES AND NAMES FOR HANDEDNESS TAG 1 (\$01)

F	UNDEFINED FRAGMENT
L	LEFT
R	RIGHT
W	WHOLE

COPIES AND NAMES FOR FRAGMENTATION TAG 2 (\$02)

0	MODERN BREAK
1	100%
2	25%
3	<25%
4	<50%
5	50%
6	>50%
7	75%
9	>75%
A	CAUDAL
B	POSTERIOR
D	DISTAL
E	MEDIAL
F	ANTERIOR
J	JOINT SURFACE
L	LATERAL
M	MIDSHAFT
N	CRANIAL
O	MODERN BREAK
P	PROXIMAL
S	DORSAL
V	VENTRAL
X	EPIPHYSIS

CODES AND NAMES FOR HORN CORES TAG 3 (#03)

*	MULTIPLE HORNS
O	OVAL CROSS-SECTION
1	TYPE1 ? MALE
2	TYPE2 ? FEMALE
3	TYPE3 ? CASTRATE
A	POINTED TIP
B	ROUND CROSS-SECTION
C	COMPACT
D	SHORT-HORNED
G	STRAIGHT
H	POROUS
J	CURVED
L	LONG-HORNED
M	MEDIUM-HORNED
N	NATURALLY POLLED
O	OVAL CROSS-SECTION
P	SURGICALLY POLLED
R	ROUND TIP
S	STRAIGHT
T	TWISTED
V	VERY POROUS

CODES AND NAMES FOR GNAWING TAG 4 (#04)

1	SLIGHT
2	MODERATE
3	SEVERE
A	CAUDAL
B	POSTERIOR
C	CANID
D	DISTAL
E	MEDIAL
F	ANTERIOR
H	HUMAN
I	INTERNAL
J	JOINT SURFACE
L	LATERAL
M	MIDSHAFT
N	CRANIAL
P	PROXIMAL
R	RODENT
S	DORSAL
T	TOTAL
U	UNGULATE
V	VENTRAL

CODES AND NAMES FOR BUTCHERY TAG 5 (\$05)

&	AXIALLY
*	MEDIO-LATERALLY (OR L-M)
+	OBLIQUE
0	DORSO-VENTRALLY (OR V-D)
?	POSTERIO-ANTERIORLY (OR A-P)
A	CAUDAL
B	POSTERIOR
C	CHOPPED
D	DISTAL
E	MEDIAL
F	ANTERIOR
G	SPLIT
H	RIGHT THROUGH
I	INTERNAL
J	JOINT SURFACE
K	KNIFE-CUT
L	LATERAL
M	MIDSHAFT
N	CRANIAL
O	DORSO-VENTRALLY (OR V-D)
P	PROXIMAL
Q	BATTERED
R	METHOD REPEATED
S	DORSAL
T	TOTAL
U	BURNT
V	VENTRAL
W	SAWN
Y	SUPERFICIALLY

CODES AND NAMES FOR AXIAL AND APPENDICULAR PATHOLOGY TAG 6 (\$06)

#	FUSED
&	FRACTURE
0	HOLE
1	OSSIFIED TENDONS
2	OSSIFIED INTEROSSEOUS SPACE
3	OSSIFIED SOFT TISSUE
?	EXOSTOSIS
A	CAUDAL
B	POSTERIOR
D	DISTAL
E	MEDIAL
F	ANTERIOR
G	PITTING
H	POROSITY
I	INTERNAL
J	JOINT SURFACE
L	LATERAL
M	MIDSHAFT
N	CRANIAL
O	HOLE
P	PROXIMAL
Q	DISTORTION
R	RESORPTION
S	DORSAL
T	TOTAL
U	PIT
V	VENTRAL
W	ABRASION
Y	LIPPING

CODES AND NAMES FOR DENTAL PATHOLOGY TAG 7 (\$07)

#	ROOT
&	CALCULUS
(	ANTE-MORTEM LOSS
)	HYPERPLASIA
*	PATHOLOGY IN ASSOCIATED TEETH
+	PM2 LACKING
0	PM1 PRESENT
1	I1
2	I2
3	I3
4	C
5	PM1
6	PM2
7	PM3
8	PM4
9	M1
:	M2
.	M3
?	LAST COLUMN OF M3 MISSING
@	ROTATION
A	ANTERIOR SURFACE
B	BUCCAL SURFACE
C	CROWN
D	ROOT DEFORMATION
E	DI1
F	PATHOLOGY IN ASSOCIATED SKELETON
G	DI3
H	CARIES
I	ANTE-MORTEM BREAK
J	PATHOLOGY IN ASSOCIATED JAW

K	OCCUSAL SURFACE
L	LINGUAL SURFACE
M	MALOCCLUSION
N	NECK
O	OBLIQUE
P	POSTERIOR SURFACE
Q	DPM4
S	DPM3
T	DPM2
U	DPM1
V	DC
W	DI2

CODES AND NAMES FOR SEX TAG 8 (#08)

C	CASTRATE
F	FEMALE
M	MALE

CODES AND NAMES FOR AGEING (R. T. JONES) TAG 9 (#09)

#	SUTURE
1	I1
2	I2
3	I3
4	C
5	PM1
6	PM2
7	PM3
8	PM4
9	M1
.	M2
/	M3
@	LATERAL
A	CAUDAL
B	NOT ERUPTED
C	CRANIAL
D	DISTAL
E	D11
F	FUSED
G	D13
H	POROUS
I	MEDIAL
J	JUST FUSED
K	WORN
L	ENAMEL ONLY WORN
N	NOT WORN
N	NOT FUSED
P	PROXIMAL
Q	VENTRAL
R	DORSAL

S	DPH4
T	DPH3
U	DPH2
V	DPH1
W	DC
Y	DI2

CODES AND NAMES FOR AGEING (GRANT'S METHOD) TAG 11 (#11)

0	0
1	1
2	2
3	3
4	4
5	5
6	PM2
7	PM3
8	PM4
9	M1
:	M2
,	M3
A	A
B	B
C	C
D	D
E	E
F	F
G	G
H	H
J	J
K	K
L	L
M	M
N	N
O	O
P	P
S	DPM4
T	DPM3
U	DPM2

W

WEAR

CODES AND NAMES FOR BONE WORKING TAG 13 (#13)

#	DRILLED
*	PUNCHED
0	PERFORATED
/	SPLIT
?	FINISHED OBJECT
A	CAUDAL
B	POSTERIOR
D	DISTAL
E	MEDIAL
F	ANTERIOR
H	SHAVED
I	INCISED
J	JOINT SURFACE
K	WAISTED
L	LATERAL
M	MIDSHAFT
N	CRANIAL
O	PERFORATED
P	PROXIMAL
R	RASPED/FILED
S	DORSAL
T	TOTAL
U	INTERNAL
V	VENTRAL
W	SAWN
Y	POLISHED

CODES AND NAMES FOR BONE CONDITION TAG 14 (#14)

#	FRIABLE
*	CHARRED
+	SCALED
0	IVORIED
1	SLIGHT
2	MODERATE
3	SEVERE
9	NORMAL
@	MOTTLED
A	CAUDAL
B	POSTERIOR
C	CALCINED
D	DISTAL
E	MEDIAL
F	ANTERIOR
G	STAINED
H	SHED
I	INTERNAL
J	JOINT SURFACE
K	BRITTLE
L	LATERAL
M	MIDSHAFT
N	CRANIAL
O	IVORIED
P	PROXIMAL
R	ERODED
S	DORSAL
T	TOTAL
U	FITTED
V	VENTRAL

W

CONCRETION

Y

CHALKY

CODES AND NAMES FOR CO-ORDINATE BUTCHERY TAG 15 (\$15)

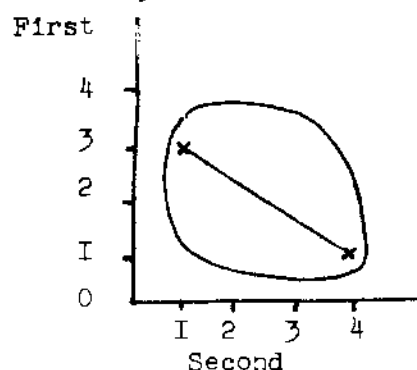
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
B	POSTERIOR SURFACE
C	CHOPPED
D	DISTAL JOINT SURFACE
E	END OF REF.
F	ANTERIOR SURFACE
G	SPLIT
H	RIGHT THROUGH
K	KNIFE CUT
L	LATERAL SURFACE
M	MEDIAL SURFACE
O	DORSAL SURFACE
P	PROXIMAL JOINT SURFACE
Q	BATTERED
R	METHOD REPEATED
S	START OF REF.
U	BURNT
V	VENTRAL SURFACE
W	SAWN
X	HOLE
Y	SUPERFICIALLY

\$I5 BUTCHERY DESCRIPTION.

P proximal joint surface	U burnt
D distal joint surface	C chopped
F anterior surface	K knife cut
B posterior surface	W sawn
M medial surface	R method repeated
L lateral surface	Q battered
V ventral } only for vertebrae	X hole
O dorsal }	G split
S starts	Y superficially
E ends	H right through

The butchery descriptions are recorded as a grid reference (North then East). The two points are given, and these are prefixed S (for starts), followed by a four figure reference, then E (for ends) and another four figure reference. Before this the surface is chosen and denoted, eg P for proximal joint surface. After the grid reference the butchery description is given, eg K for knife cut. More than one description can be used here eg CH (chopped right through). But more than one description cannot be used for the surface description eg PM cannot appear. This is because each of the letters in this group refers to a different diagram .

For example



This would be described as:

\$I5 PS030IE0IO4K

The diagrams.

Some bones have more than one diagram, for example the humerus has three diagrams. proximal and distal joint surfaces, and a posterior view, so P, D, B etc must be used as the grid numbers aren't exclusive for the different diagrams. Proximal and distal joint surfaces are obvious, for the main view of the limb bone one has to imagine the opposite side when marking on a butchery mark. (this gives F anterior and B posterior). For the time being L and M (lateral and medial) are imagined on the same drawing, but eventually a new drawing needs to be used. Most butchery marks

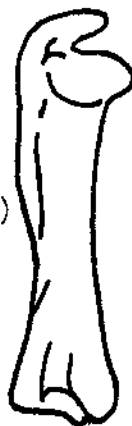
have been found to fit into F or B however.
For example humerus.



P (proximal joint surface)



D (distal joint surface)



B (posterior surface) This drawing is also used for anterior surface (F) and lateral (L) and medial (M) if necessary.

If more than one butchery mark is present these must be described on separate lines with a new \$I5.

For drawings of individual bones with co-ordinates see the Appendix.

CODES AND NAMES FOR ANTLERS TAG 20 (\$20)

+	HEAD GREATER THAN 10TH. YEAR
0	HEAD OF 10TH. YEAR
1	HEAD OF 1ST. YEAR
2	HEAD OF 2ND. YEAR
3	HEAD OF 3RD. YEAR
4	HEAD OF 5TH. YEAR
5	HEAD OF 6TH. YEAR
6	HEAD OF 7TH. YEAR
7	HEAD OF 8TH. YEAR
8	HEAD OF 9TH. YEAR
9	CAST
C	DEEPLY GROOVED
D	GROOVES ERODED
E	GROOVES NORMAL
G	POROUS
H	LIGHTLY GROOVED
L	CORONET OVAL
Q	CORONET ROUND

HORSE SKULL.

RJ VD

- I 22 Length of the cheek tooth row (alveoli) (+)
- 2 23 Length of the molar row (alveoli of buccal side) (-)
- 3 24 Length of the premolar row (alveoli of buccal side) (-)
- 4 48 Greatest palatal breadth (across outer border alveoli) (-)
- 5 36 Greatest breadth foramen magnum (+)
- 6 37 Height of foramen magnum (Basion- Opisthion) (-)
- 7 34 Greatest breadth occipital condyles (+)
- 3 38 Greatest neurocranium breadth (braincase euryon- euryon) (-)
- 9 50 Basion height (Basion to highest point of skull in projection)
- IO 3I Greatest inner length of orbit (Ectorbitale- Entorbitale)
- II 32 Greatest inner height of orbit (+)
- I2 I Profile length = total length (Akrokranium- Prosthion) (+)
- I3 2 Condylbasal length: aboral border of occipital condyles -Prosthion (+)
- I4 39 Least frontal breadth (+)
- I5 44 Facial breadth between infraorbital foramina (least distance) (-)
- I6 42 Least breadth between the orbits (Entorbitale- Entorbitale) (+)
- I7 40 Least breadth between supraorbitale foramina (+)
- I8 45 Greatest breadth of 'snout' measured across outer borders alveoli I³ (+)
- I9 47 Least breadth in region of diastema (+)
- 20 I9 Dental length: Postdentale- Prosthion (+)

Order of input:

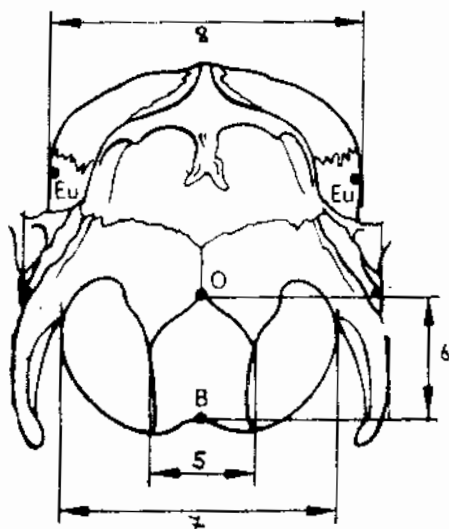
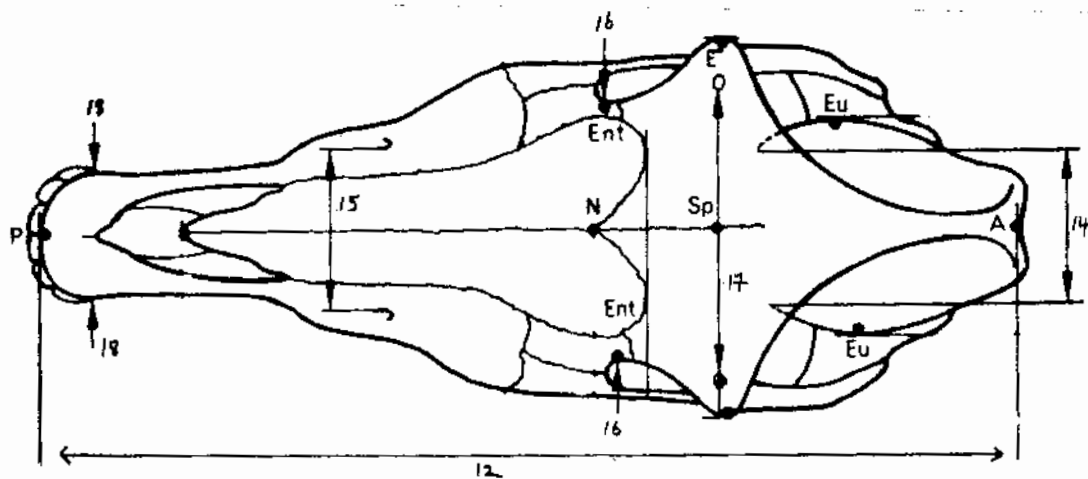
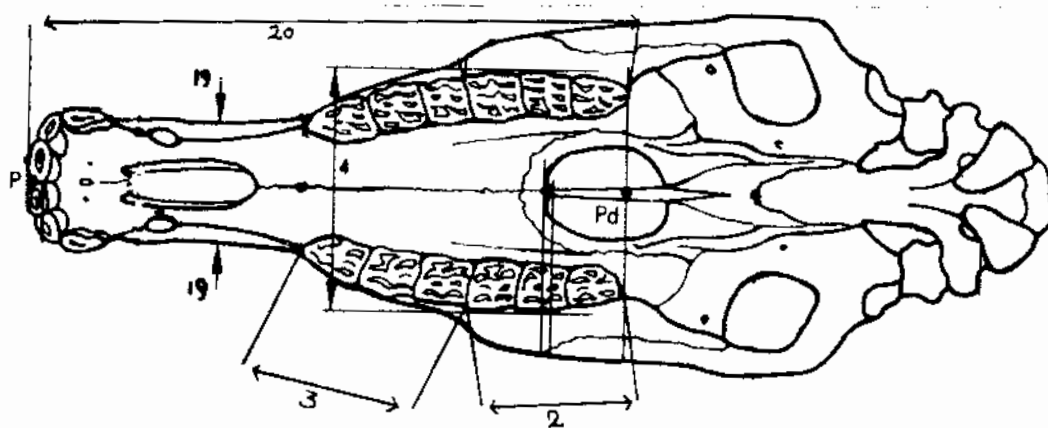
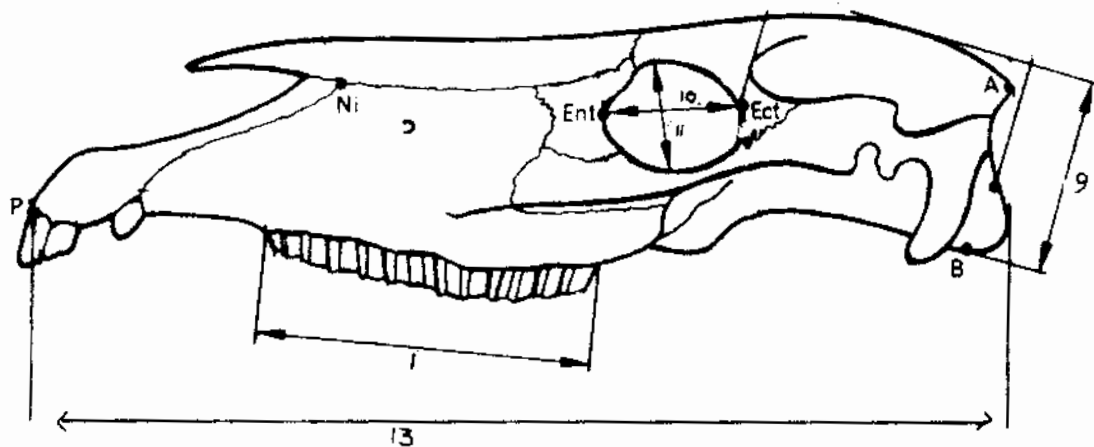
Horse maxilla; I 2 3 - - (5)

Horse occipital; 5 6 7 - - - (6)

Horse frontal; IO II I4 I6 I7 (5)

Horse parietal; - - (2)

Horse incisive: I8 - (2)



CATTLE SKULL

RJ VD

- I 45 Greatest (ora-aboral) diameter of the horn core base (+)
- 2 46 Least (dorso- basal) diameter of the horn core base (+)
- 3 47 Length of the outer curvature of the horn core (tape) (-)
- 4 20 Length of the cheek tooth row (measured along alveoli) (+)
- 5 21 Length of the molar row (alveoli on buccal side) (-)
- 6 22 Length of the premolar row (alveoli on buccal side (-)
- 7 26 Greatest breadth occipital condyles (+)
- 8 28 Greatest breadth foramen magnum (+)
- 9 29 Height of foramen magnum (Basion- Opisthion) (-)
- IO 23 Greatest inner length of orbit (Ect_{orbitale}- Endorbitale) (+)
- II 40 Greatest height of occipital region. Basion- highest point intercornual ridge in median plane (+)
- I2 41 Least height of of occipital region . Opisthion- ditto (+)
- I3 39 Least inner height of temporal groove (roughly middle of one bone edge to another (-)
- I4 31 Least breadth between bases of horn cores (-)
- I5 33 Greatest breadth across orbits (Ectorbitale - Ectorbitale) (+)
- I6 35 Facial breadth; across facial tuberosities (+)
- I7 1 Profile length = total length. Akrokranon - Prosthion (+)
- I8 2 Oral palatal length: Palatinoorale- Prosthion (+)
- I9 38 Greatest palatal breadth: across outer borders of alveoli (-)
- 20 43 Greatest tangential distance between outer curves of horn cores (+)

Order of Input.

Cattle horn core: I 2 3 - (4)
 Cattle maxilla: 4 5 6 - - (5)
 Cattle occipital: 7 8 9 I2 - - (6)
 Cattle frontal: IO I5 - - - (5)
 Cattle parietal: I4 - (2)
 Cattle temporal: I3 - (2)

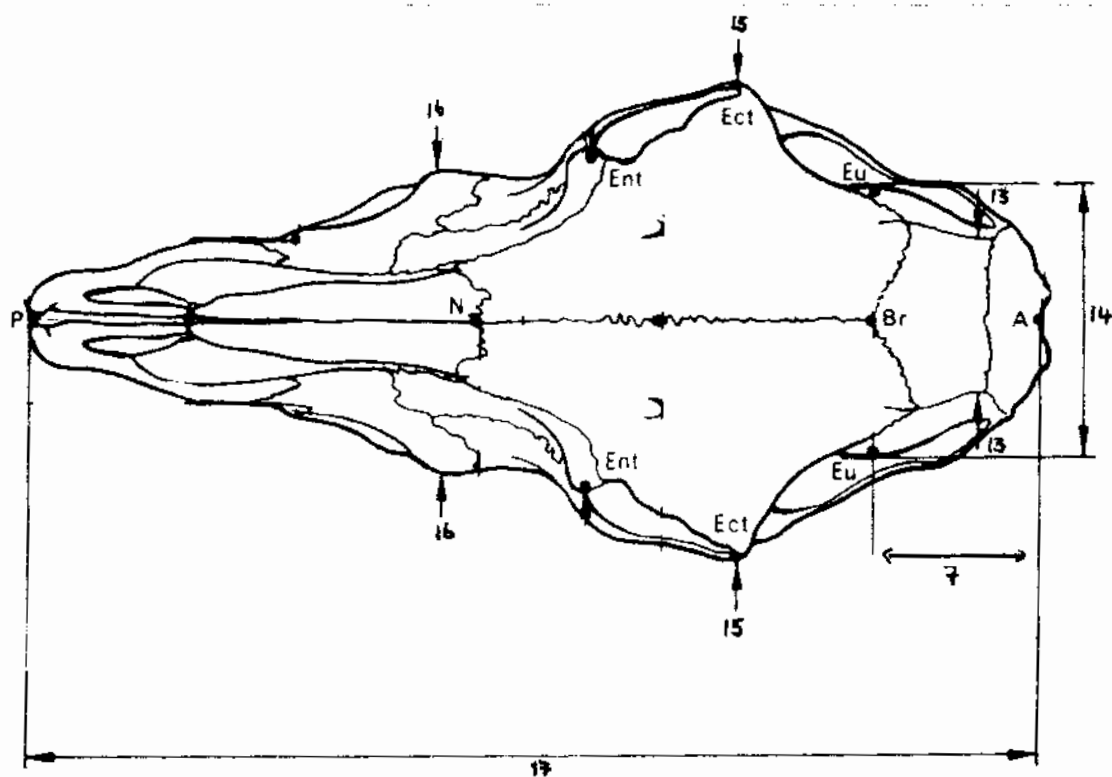
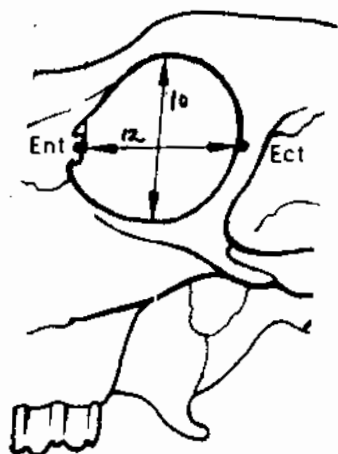
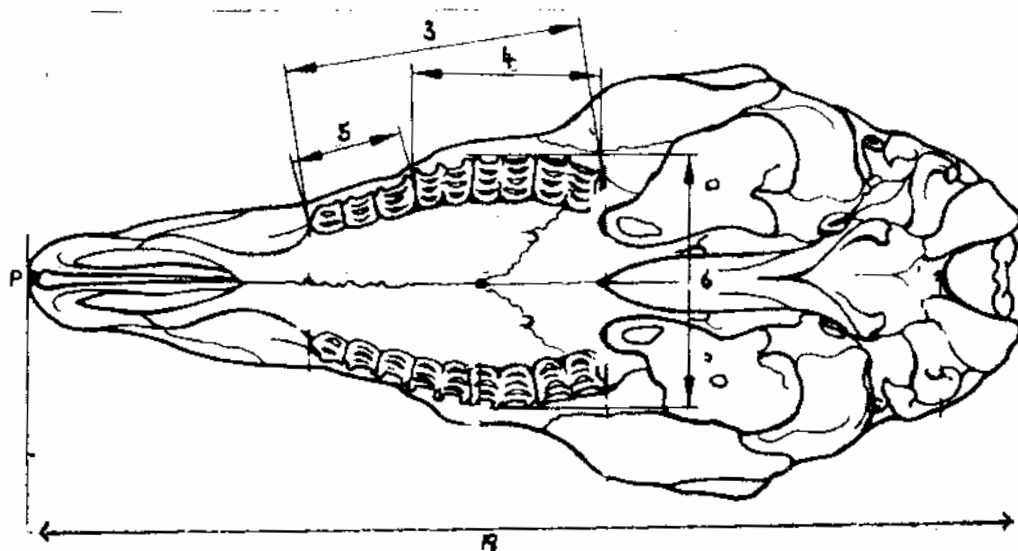
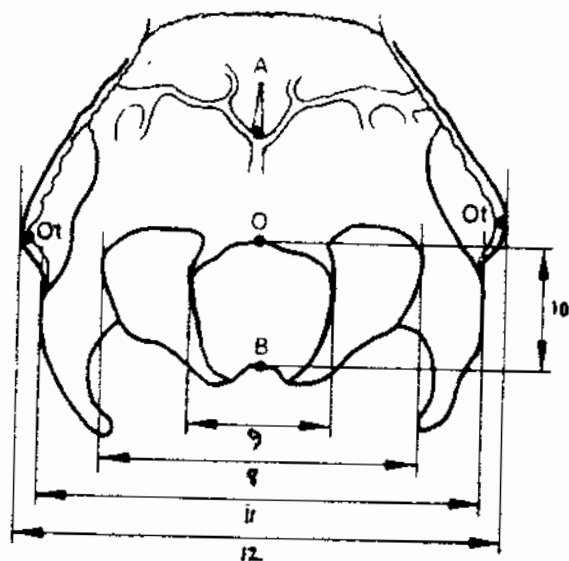
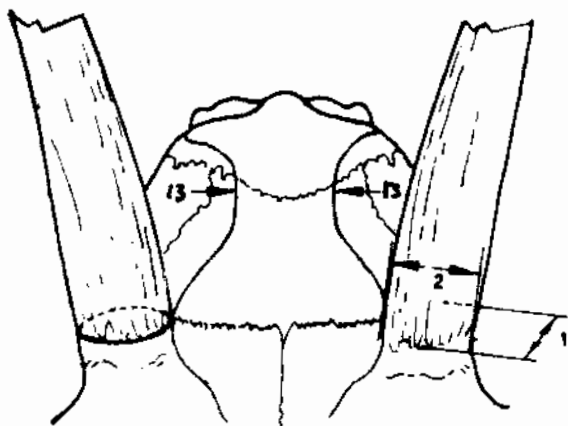
SHEEP/GOAT SKULL.

RJ VD

- I 41 Greatest (oro-aboral) diameter of horn core base (+)
- 2 42 Least (latero-medial) diameter of horn core base (+)
- 3 21 Length of the cheek tooth row (alveoli) (+)
- 4 22 Length of the molar row (alveoli on buccal side) (-)
- 5 23 Length of the premolar row (... ..) (-)
- 6 39 Greatest palatal breadth: outer borders of alveoli (-)
- 7 9 Akrokranium- Bregma (+)
- 8 27 Greatest breadth of occipital condyles (+)
- 9 29 Greatest breadth of foramen magnum (+)
- I0 30 Height of foramen magnum: Basion- Opsithion (-)
- II 28 Greatest breadth at bases of paraoccipital processes (+)
- I2 26 Greatest mastoid breadth: Otion- otion (+)
- I3 31 Least breadth parietal = between temporal lines (+)
- I4 33 Greatest neurocranium breadth- braincase: Eu-euryon
- I5 34 Greatest breadth across the orbits (Ectorbitale- Ect) (-)
- I6 36 Facial breadth: breadth across facial tuberosities (+)
- I7 I Profile length: Akronion- Prosthion
- I8 2 Condylbasal length: aboral border occ. condyles- Prosthion (+)
- I9 24 Greatest inner length orbit; Ectorbitale- Entorbitale (+)
- 20 25 Greatest inner height orbit: (+)

Order of Input:

- S/G horn core: I 2 - - (4)
- S/G maxilla: 3 4 5 - - (5)
- S/G frontal: I5 I9 20 I 2 (5)
- S/G parietal: I3 - (2)
- S/G temporal: - - (2)



DEER SKULL.

RJ VD

- I 20 Length of cheek tooth row (alveoli) (+)
- 2 2I Length of molar row (alveoli on buccal side) (-)
- 3 22 Length of premolar row (.. .. .)()
- 4 37 Greatest palatal length (outer borders alveoli) (-)
- 5 26 Greatest breadth occipital condyles (+)
- 6 28 Greatest breadth foramen magnum (+)
- 7 25 Greatest mastoid breadth: Otion- otion (+)
- 8 34 Zygomatic breadth: Zygion- zygion (+)
- 9 38 Basion- the highest point of superior nuchal crest (+)
- IO 40 Proximal circumference of burr , pedicel breadth (+)
- II 4I Distal circumference of burr, pedicel depth (+)
- I2 23 Greatest inner length of orbit: Ectorbitale- Entorbitale (+)
- I3 24 Greatest inner height of orbit (+)
- I4 3I Least frontal breadth- forehead aboral of orbits (+)
- I5 32 Greatest breadth across orbit- greatest frontal breadth Ect- Ect (+)
- I6 33 Least breadth between orbits: Ent- Ent (+)
- I7 35 Greatest breadth across nasals (-)
- I8 I Total length= greatest length: Akrokranion- Prosthion (+)
- I9 2 Condylbasal length: aboral border of occipital condyles- Prosthion (+)
- 20 43 Minimum distance between pedicels in male

A Breadth coronet

At Greatest length tine

B Maximum length from coronet

Bt Greatest breadth tine

Order of Input:

Deer antler pedicel IO (I)

Deer antler: A B II - - (5)

Deer antler tine: At Bt (2)

Deer maxilla: I 2 3 - - (5)

Deer occipital: 5 6 7 9 - - (6)

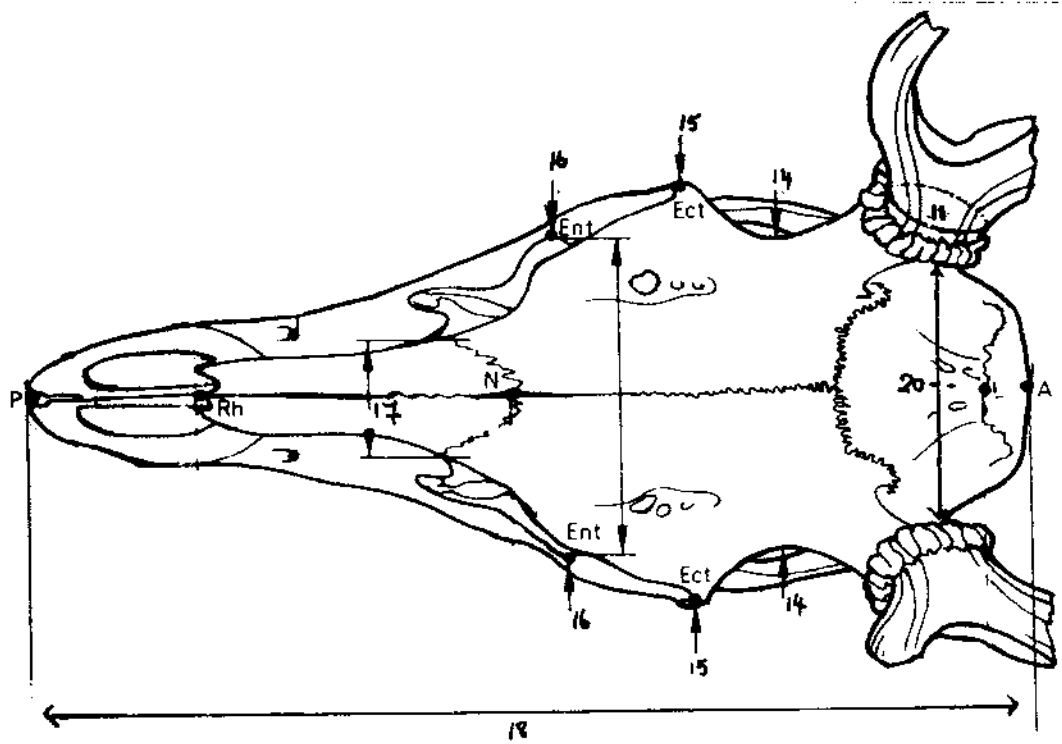
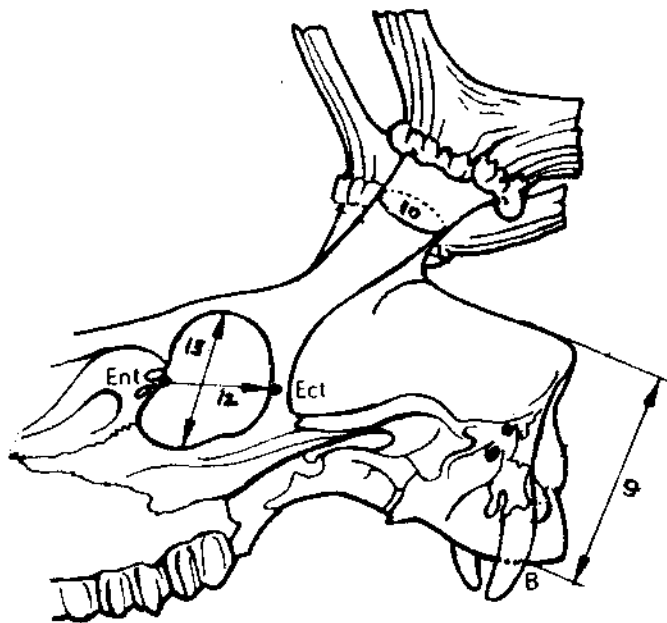
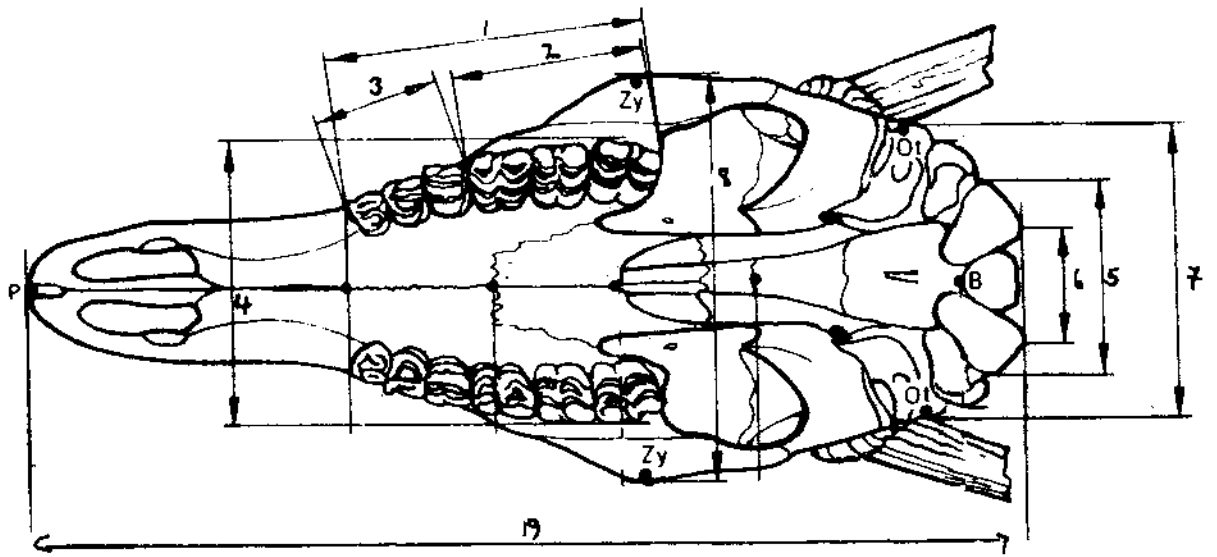
Deer frontal: I2 I3 I4 I5 I6 (5)

Deer parietal: 20 - (2)

Deer nasal: I7 (I)

DEER ANTLER

- I Total length from coronet to the tip of the antler (TL)
- 2 Coronet breadth (CB)
- 3 Coronet depth (CD)
- 4 Pedicel breadth (PB)
- 5 Pedicel depth (PD)
- 6 Brow tine length (BTL)
- 7 Maximum brow tine breadth - at junction with rest of antler (MBTB)
- 8 Spare
- 9 Spare
- IO Spare



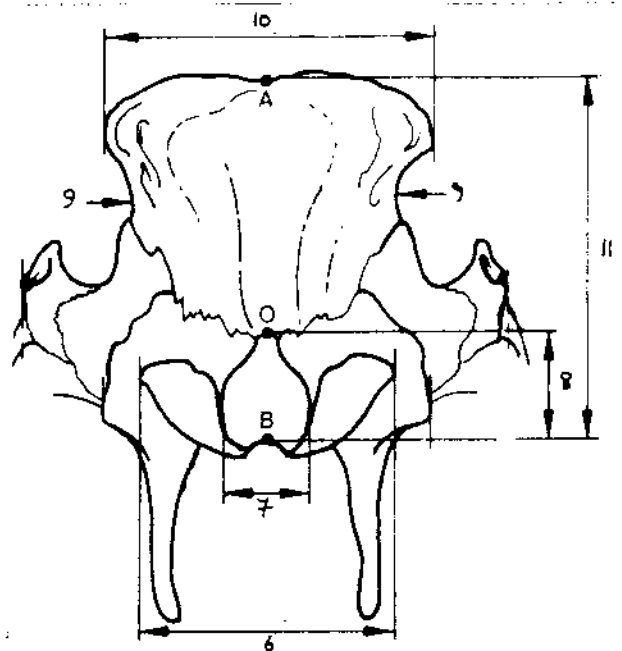
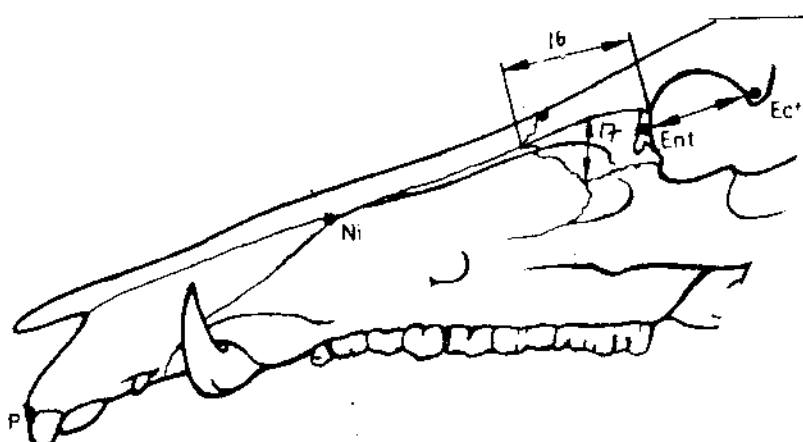
PIG SKULL.

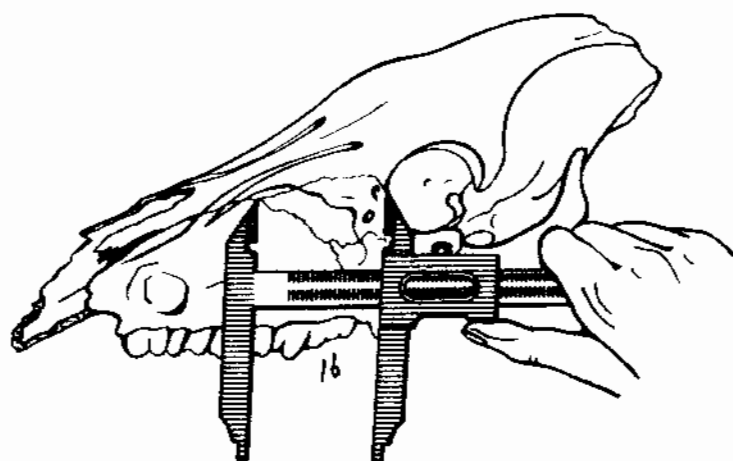
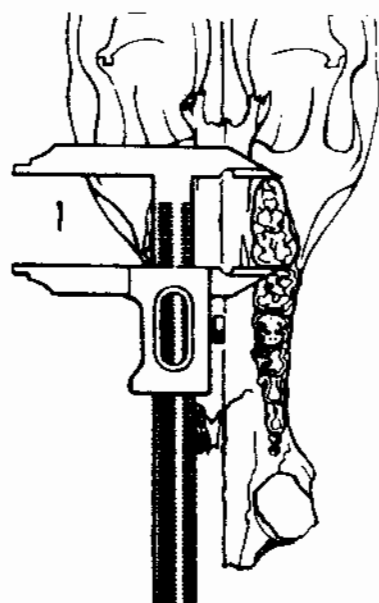
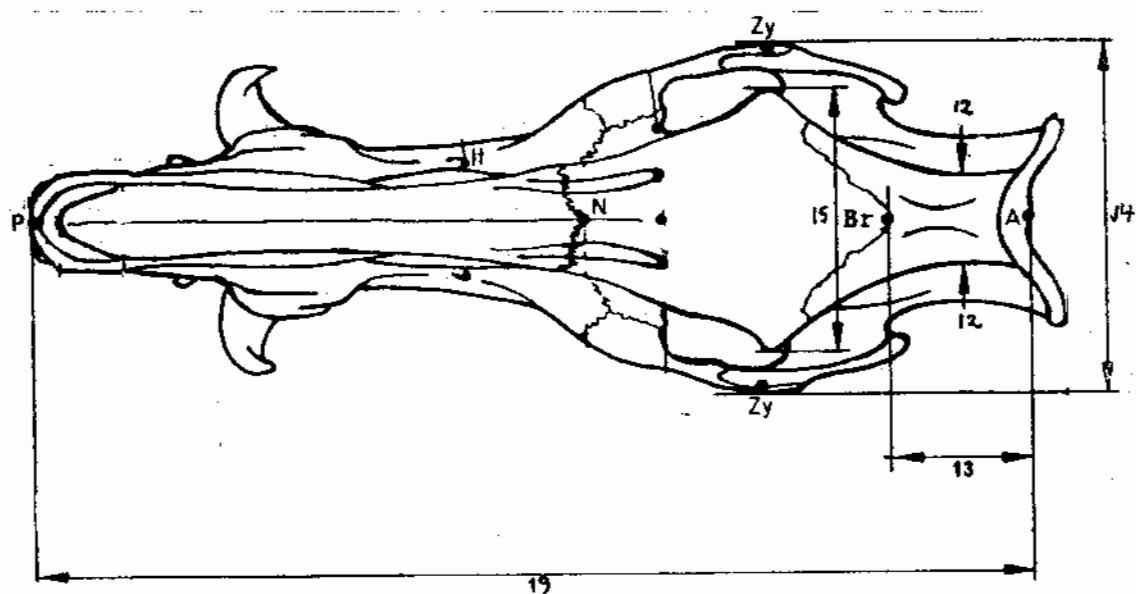
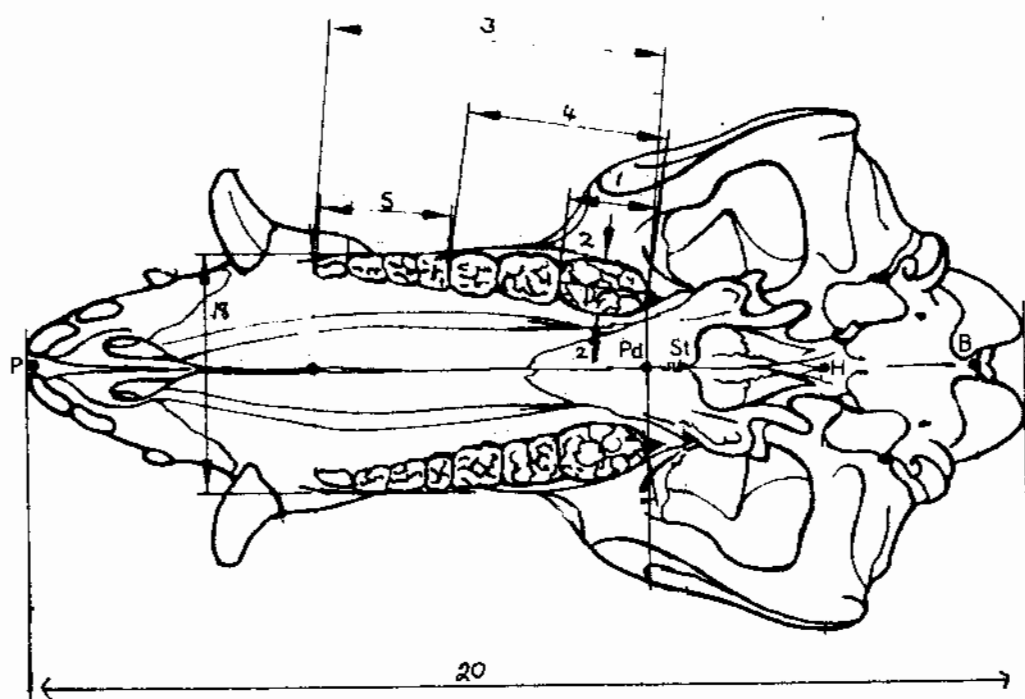
R7 VD

- I 30 Length of M³ measured near base of crown (-)
- 2 3I Breadth of M³ (... ..) (-)
- 3 27 Length of cheek tooth row (along alveoli) (+)
- 4 28 Length of molar row (alveoli on buccal side) (-)
- 5 29 Length of premolar row (... ..) (-)
- 6 34 Greatest breadth of occipital condyles (+)
- 7 36 Greatest breadth of foramen magnum (+)
- 8 37 Height foramen magnum (+)
- 9 39 Least breadth squamous part occipital bone (+)
- IO 38 Greatest breadth (+)
- II 45 Height of occipital region: Basion- Akrokranium (+)
- I2 40 Least breadth parietal (+)
- I3 I3 Parietal length: Akrokranium- Bregma (+)
- I4 43 Zygomatic breadth: Zygon- zygon (+)
- I5 4I Greatest frontal breadth: Ect- Ectorbitale (+)
- I6 2I Upper length lacrimal (-)
- I7 22 Height of lacrimal (formerly, breadth) (-)
- I8 44 Greatest palatal breadth (outer borders alveoli) (-)
- I9 I Profile length: Akrokranium Prosthion (+)
- 20 2 Condylbasal length: aboral border occiput- Prosthion (+)

Order of Input.

Pig maxilla: I 2 3 4 5 (5)
Pig occipital: 6 7 8 9 IO II (6)
Pig frontal: I5 - - - - (5)
Pig parietal: I2 I3 (2)
Pig incisive: - - (2)
Pig lacrimal: I6 I7 (2)





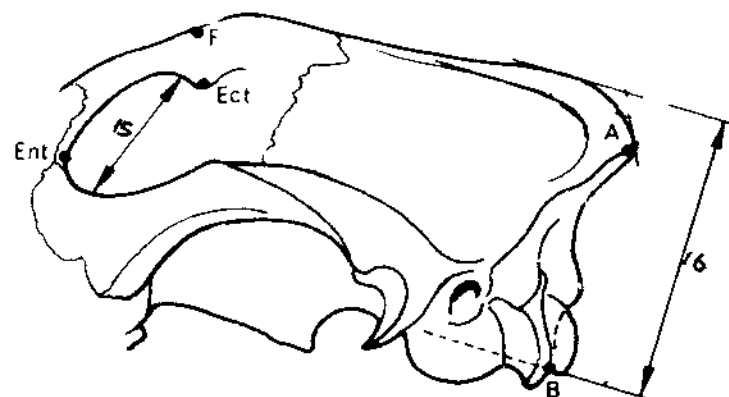
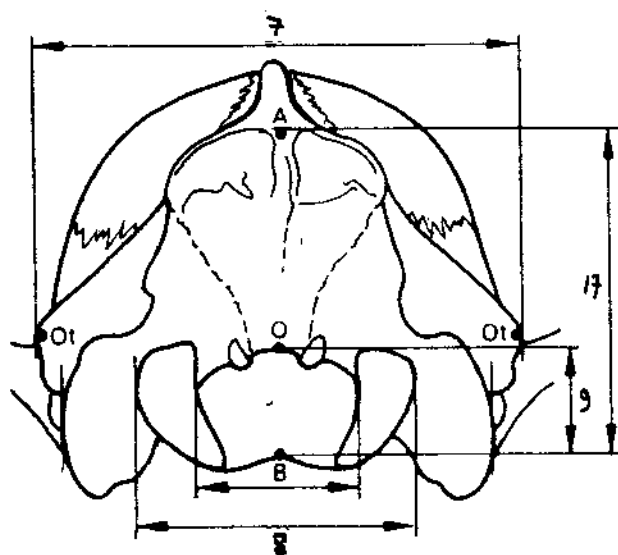
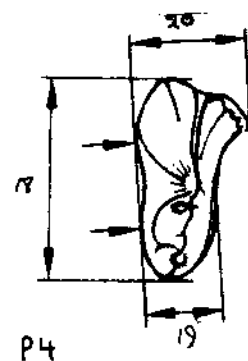
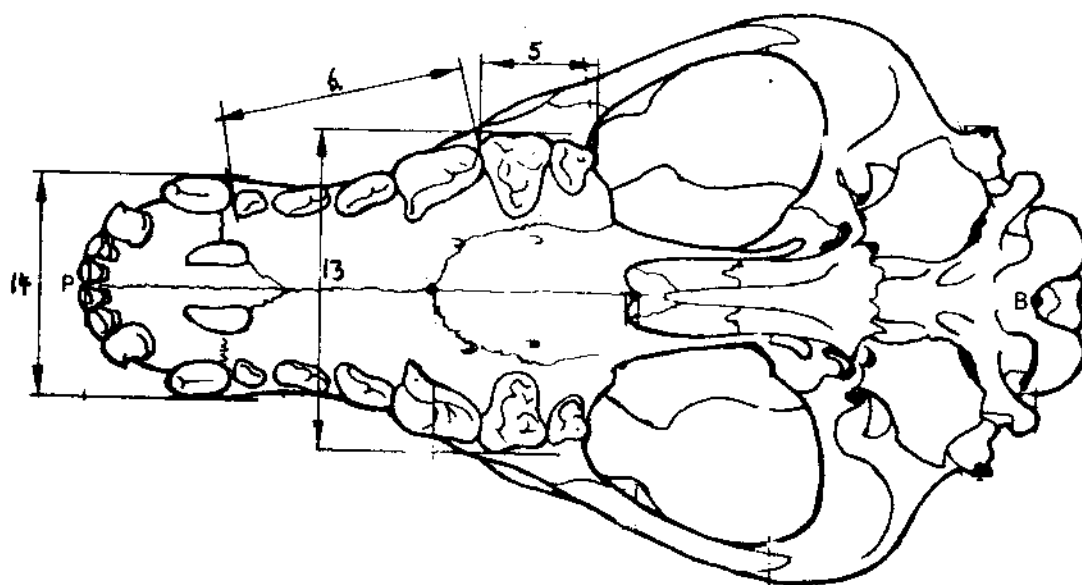
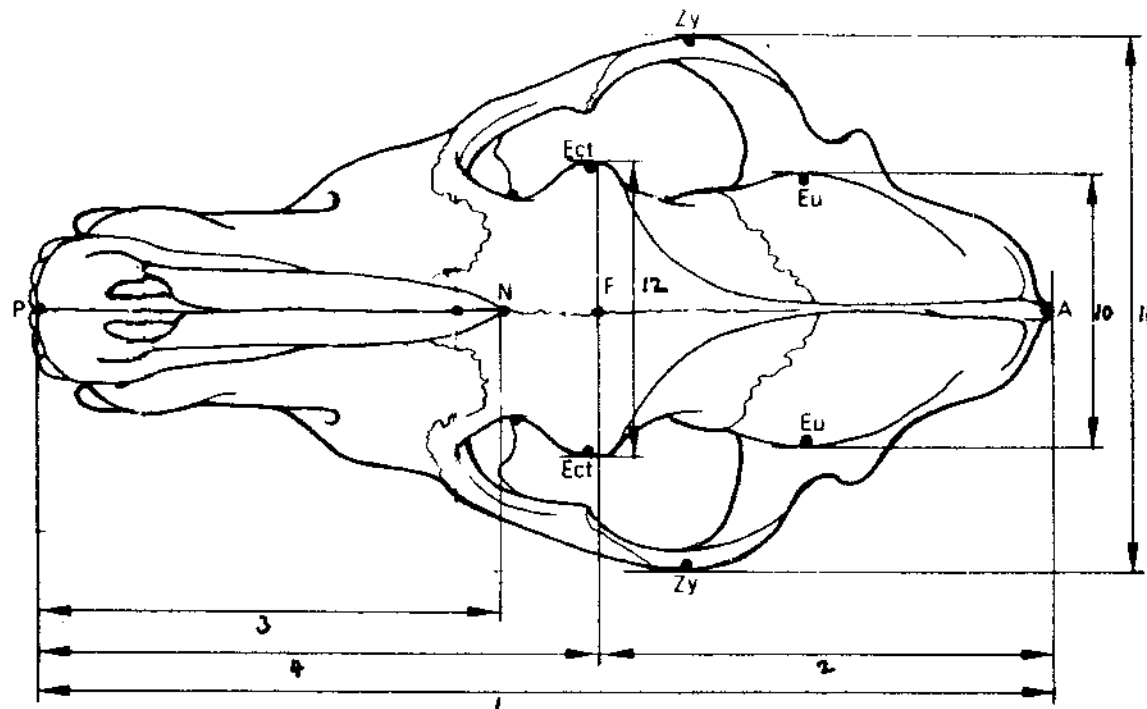
DOG SKULL.

RJ VD

- I I Total length: Akrokranium- Prosthion (+)
- 2 7 Upper neurocranium length: Nasion- frontal midpoint (+)
- 3 8 Viscerocranium length: Nasion- Prosthion (+)
- 4 9 Facial length: Frontal midpoint-Prosthion (+)
- 5 I6 Length of molar row (alveoli on buccal side) (-)
- 6 I7 Length of premolar row (... ..) (-)
- 7 23 Greatest mastoid breadth: Otion- otion (+)
- 8 25 Greatest breadth occipital condyles (+)
- 9 28 Height of foramen magnum: Basion- opisthion ()
- IO 29 Greatest neurocranium breadth (braincase max): Eu- Euryon (-)
- II 30 Zygomatic breadth: Zygion- zygion (+)
- I2 Frontal breadth: Ectorbitale- ectorbitale (+)
- I3 34 Greatest palatal breadth: outer borders alveoli (-)
- I4 36 Breadth at canine alveoli (+)
- I5 37 Greatest inner height of orbit (+)
- I6 38 Skull height (Wagner I930 pI9) Basiocc.- sag. crest (+)
- I7 40 Height occipital triangle: Akrokranium- Basion (-)
- I8 L Length carnassial P⁴
- I9 B Breadth carnassial P⁴
- 20 GB Greatest breadth carnassial P⁴

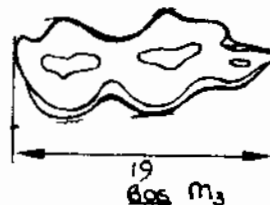
Order of Input.

- Dog maxilla: 5 6 L B GB (5)
 Dog occipital: 7 8 9 I7 - - (6)
 Dog frontal: I2 I5 - - - (5)
 Dog parietal: IO - (2)
 Dog incisive: I4 - (2)



RJ VD

- 1 CB Maximum distance between lateral and medial border of condylar process
- 2 HI
- 3 I3 H2 Middle height of vertical ramus (+) Gov → notch
- 4 I4 H3 Oral height of vertical ramus: Gov - coronion (+)
- 5 I LI Gonion caudale - Infradentale (+)
- 6 5? L2 Gonion caudale- oral border alveolus of P₁ (+)
- 7 L3
- 8 L4
- 9 TL
- 10 PML length of premolar row (alveoli on buccal side) (-)
- 11 ML Length of molar row (.. .. .) (-)
- 12 II DL Length of diastema P₂ -I₄ (or C?) (+)
- 13 I5c I Height of mandible in front of P₂ (-)
- I4 2 P₃ ..
- I5 3 P₄ ..
- I6 I5b 4 M_I ..
- I7 5 M₂ ..
- I8 6 M₃ ..
- I9 L M3L Length of M₃ alveoli (-)
- 20 7 CRL Length of cheek tooth row (alveoli on buccal side) (+)

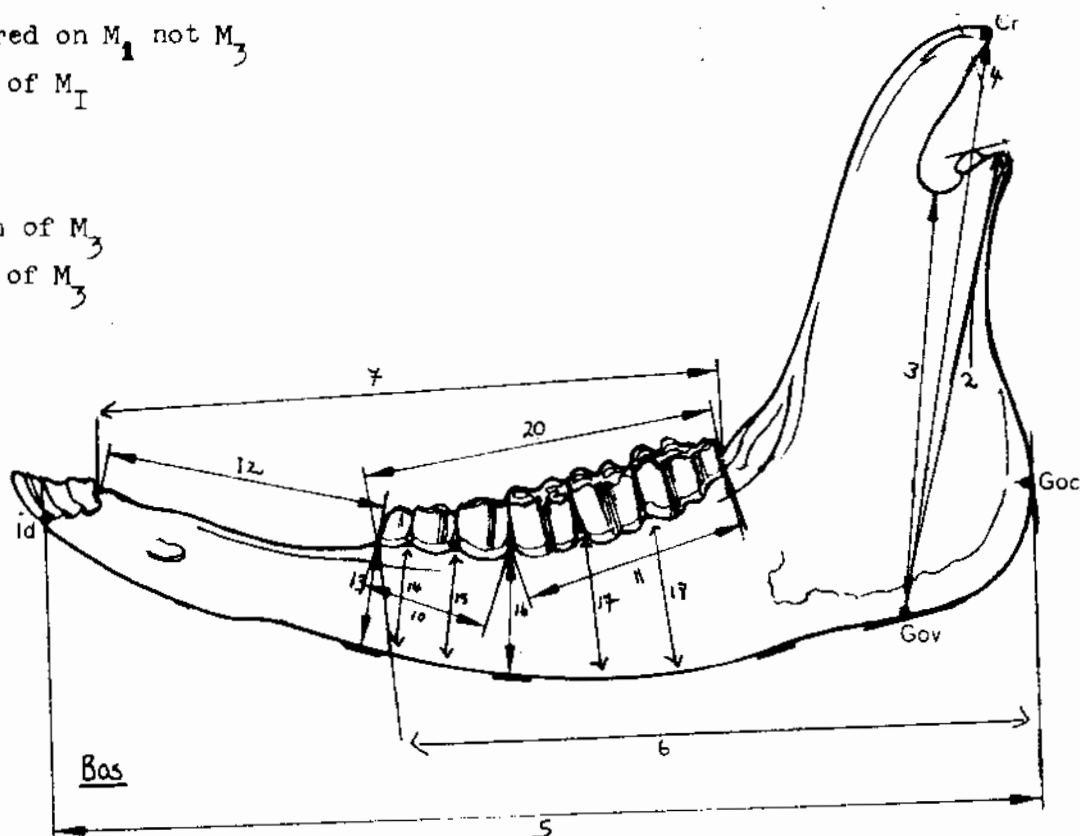


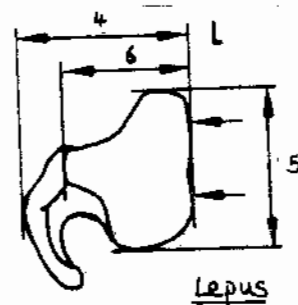
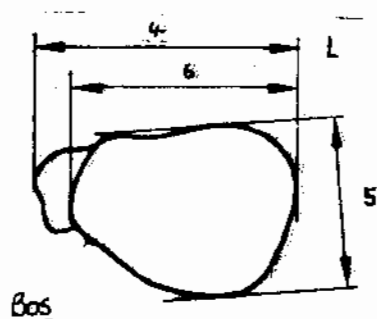
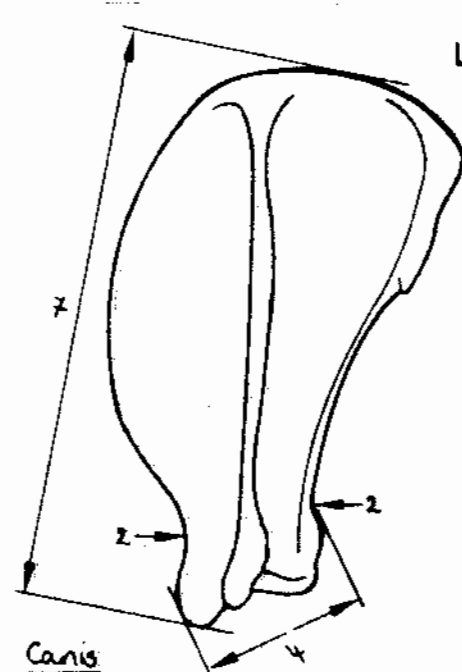
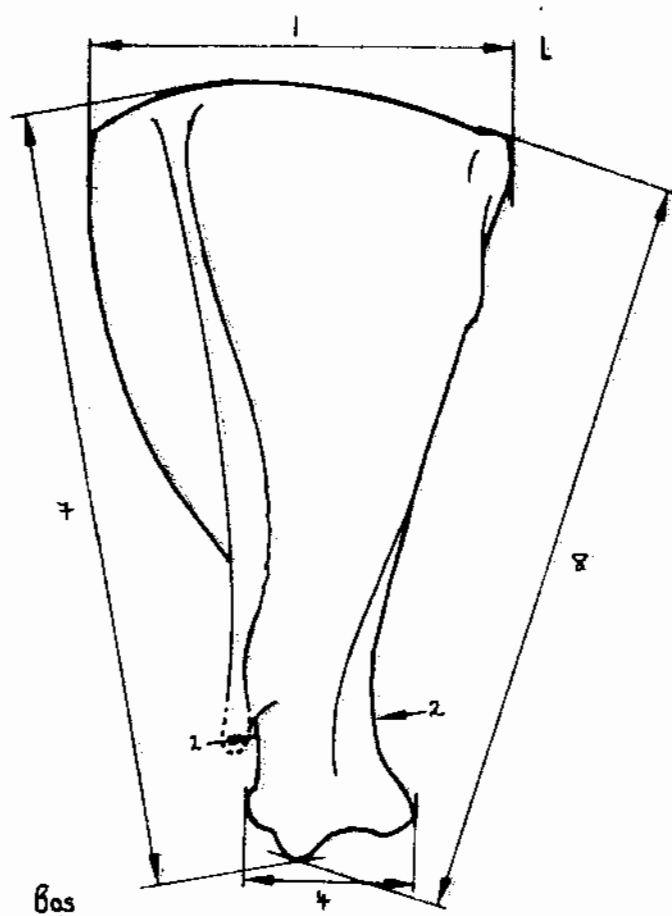
Dog.

- I9 Measured on M₁ not M₃
- 20 Width of M_I

Pig.

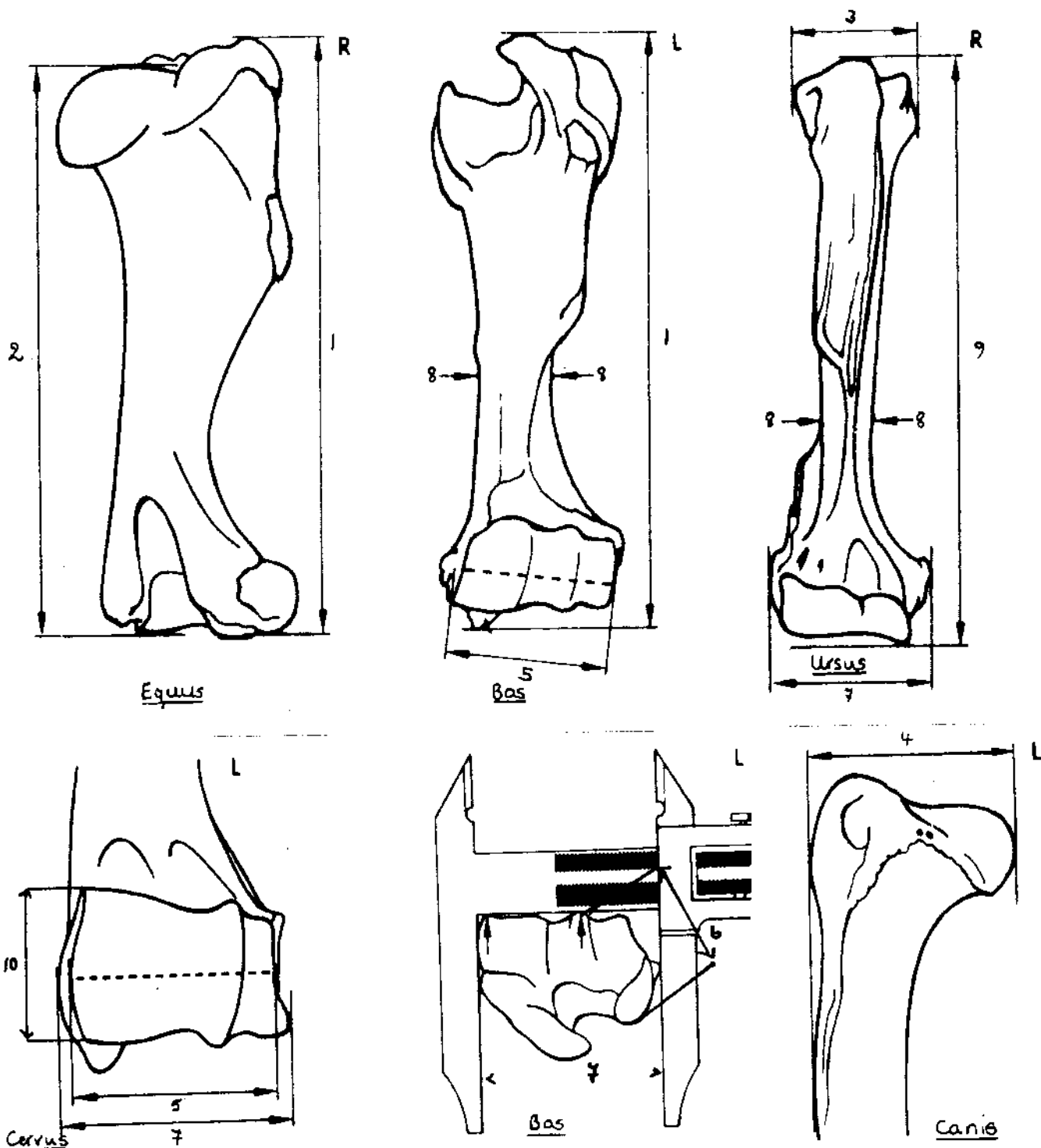
- I9 Length of M₃
- 20 Width of M₃





SCAPULA

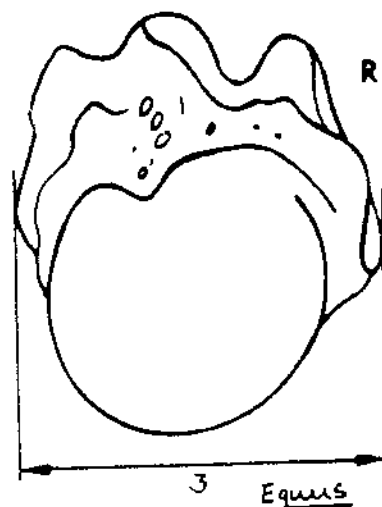
RT	VD			
1	Ld	Greatest dorsal length (only on squared scapulae) (+)		PB
2	SLC	Smallest length of collum scapulae (+ in some)		NB
3		Thickness of neck		ND
4	GLP	Greatest length processus articularis (glenoid process) (+)		GB
5	BG	Breadth of glenoid cavity (+)		GD
6	LG	Length of glenoid cavity (+) (different in pigs)		GC
7	HS	Height along the spine (+)		L
8	DHA	Diagonal height (only on squared scapulae)		
9		Spine to glenoid cavity		
10		Spare		



HUMERUS

RJ VD

1	GLI	Greatest length lateral (horse) (+)	LI
2	GLC	Greatest length from caput (+)	L2
3	Bp	Greatest breadth prox. end (not dog or lagomorphs)	PB
4		3 tubercles, caudal s of head	PD
5	BT	Greatest breadth trochlea (-)	DB
6		Trochlea art. and caudal surface troch.	DD
7	Bd	Greatest breadth distal end (-)	
8	SD	Smallest breadth diaphysis (+)	
9	GL	Greatest length (+)	
10	LT	Length Trochlea MM?	



RADIUS

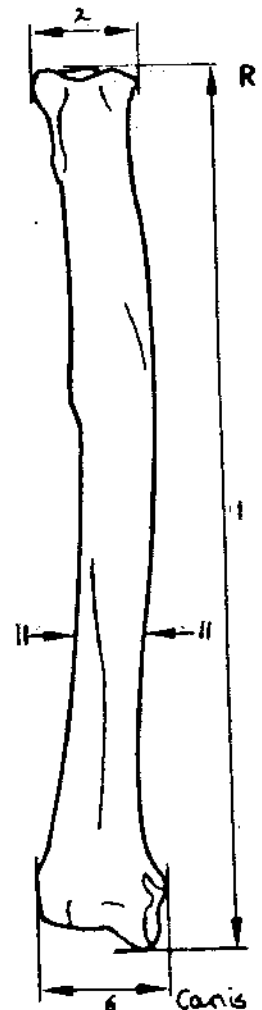
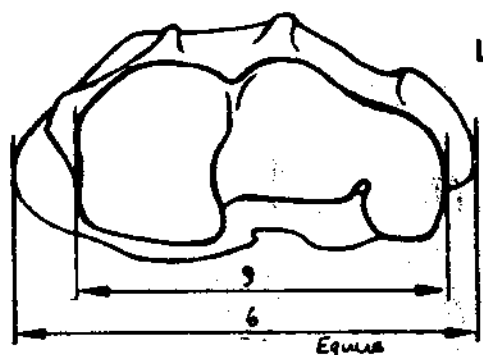
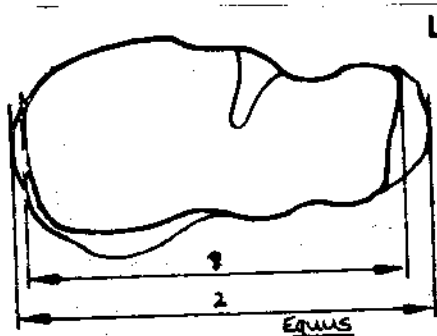
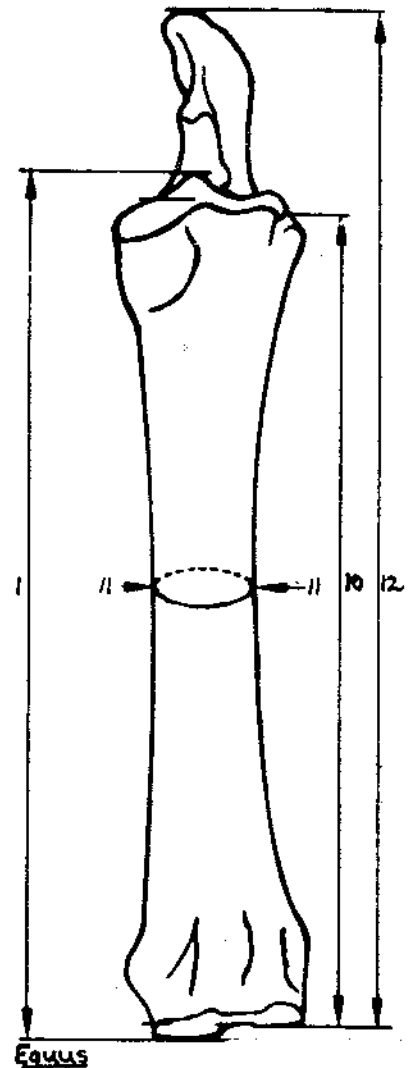
RJ VD

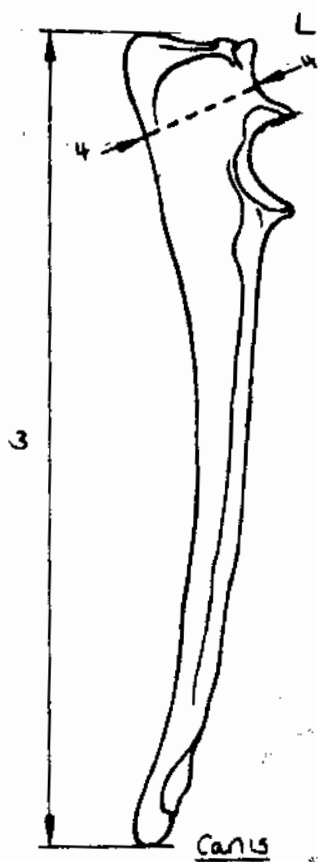
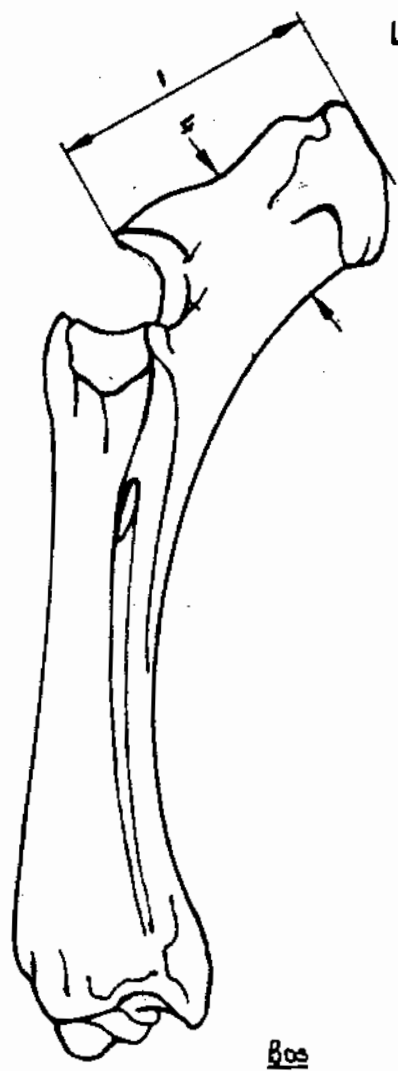
- 1 GL Greatest length (+) L
- 2 Bp Greatest breadth proximal end (+) PB
- 3 Proximal depth PB
- 4 Breadth at ulna scar MB
- 5 90 at MB MD
- 6 Bd Greatest breadth distal end (+) DB
- 7 Distal depth DD
- 8 Bfp Greatest breadth facies art. prox. PJB
- 9 Bfddistal
- 10 LP Lateral length (Horse) (+)
- 11 SD Smallest breadth diaphysis
- 12 GL1 Radius and ulna greatest.Horse,

ULNA

- 1 LO Length olecranon (-) OL
- 2 EPC Greatest breadth across.NB
- 3 GL Greatest length (+) L
- 4 SDO Smallest depth olecranon

When the radius is fused with the ulna the measurements are made to include the ulna with the radius eg MD MB, the four measurements of the ulna become measurements 13 to 16 inc.





OS COXA

RJ VD

I	GL	Greatest length of one half (epiphyses fused) (+)	A
2	LS	Length of symphysis if fused	B
3			C
4	GBA	Greatest breadth across acetabula (+)	D
5			E
6			F
7			G
8			H
9	SB	Smallest breadth of shaft of ilium	I
I0			J
II		Minimum pubis	K
I2		Length acetabulum	L
I3		Breadth acetabulum	M
I4			N
I5			O
I6	SH	Smallest height of shaft of ilium (+)	P
I7	LFO	Inner length of foramen obturatum (+)	Q
I8			R
I9	IA	Length acetabulum including lip (-)	S
20	LAR	Length acetabulum on the rim (+)	T

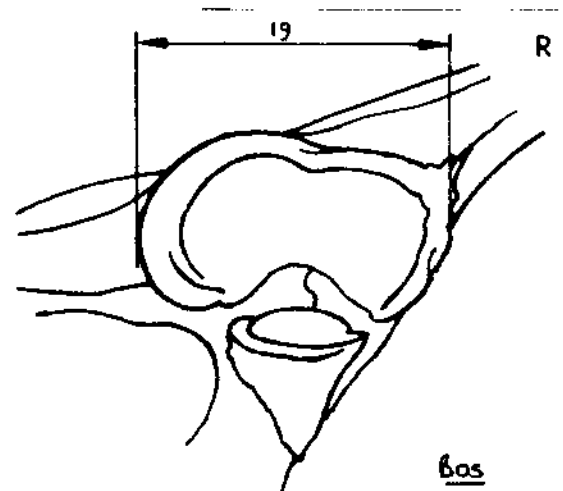
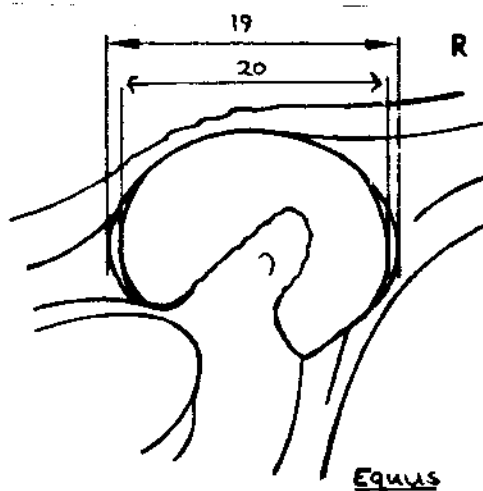
Order of Input.

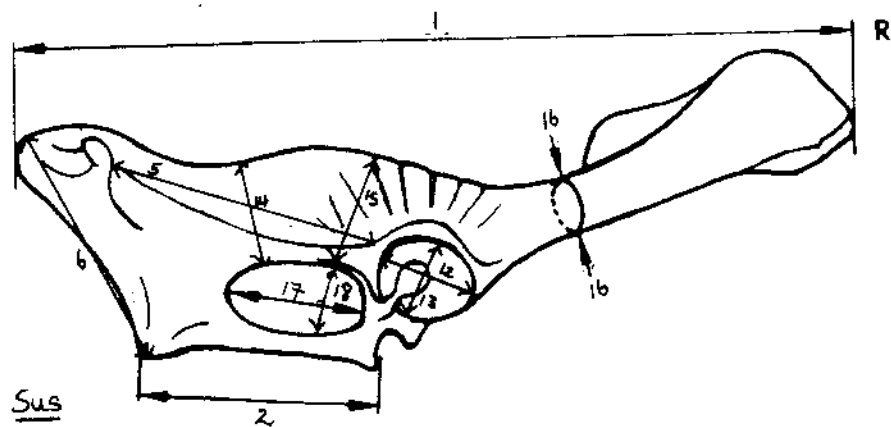
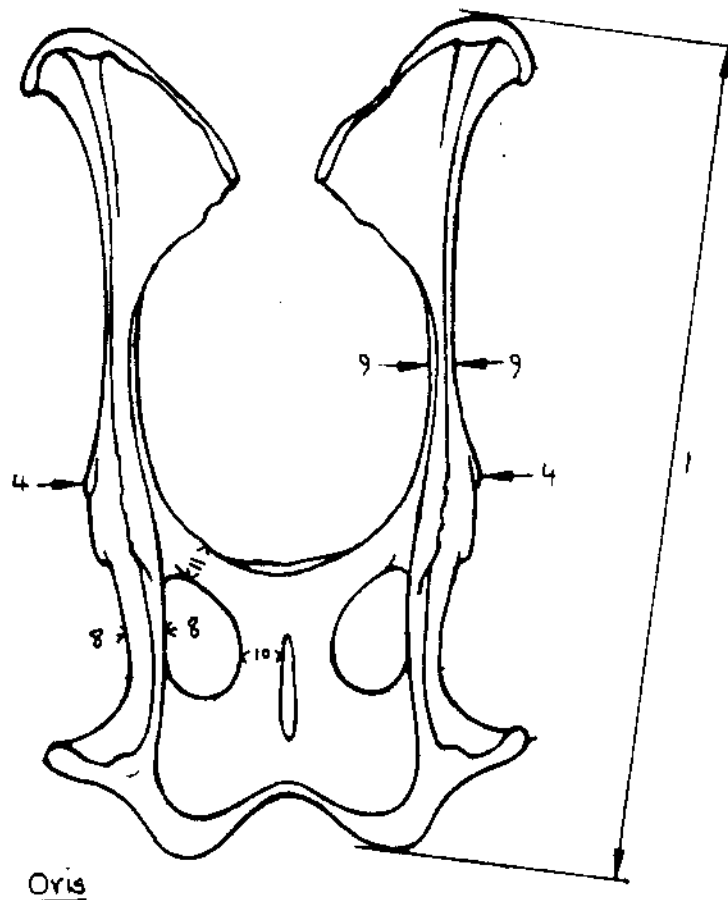
Acetabulum: I2 I3 I9 20 - - (6)

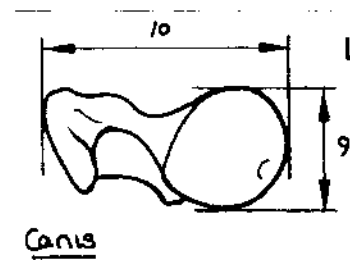
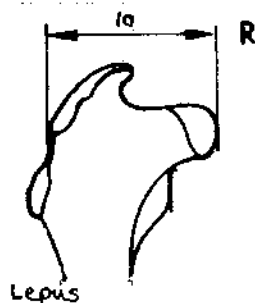
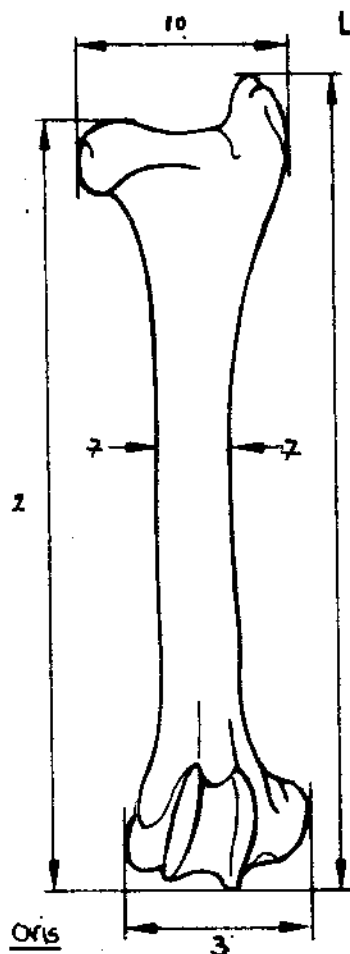
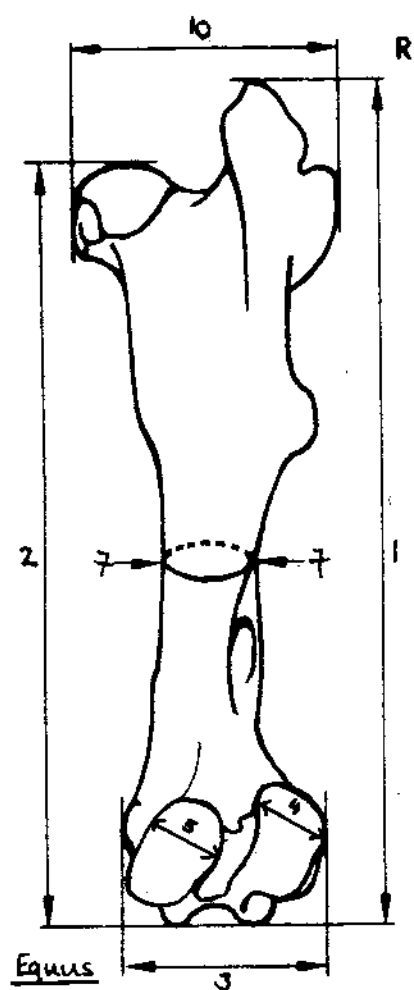
Ilium: 9 I6 (2)

Ischium: 5 7 8 I0 I4 I5 (6)

Pubis: II - (2)

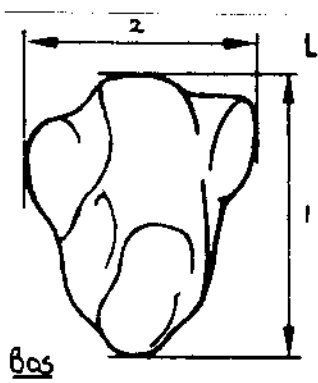






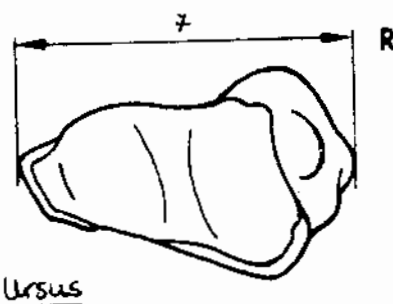
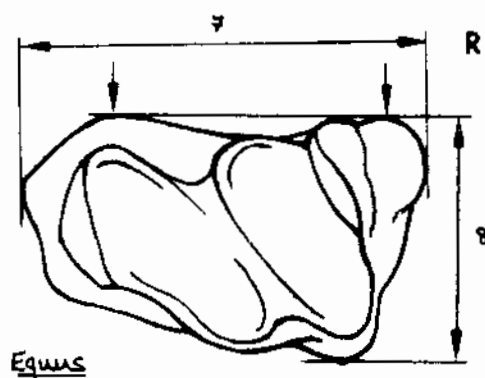
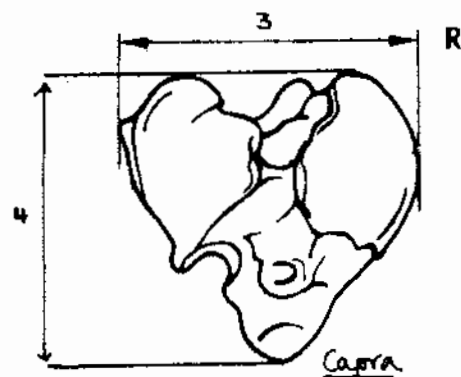
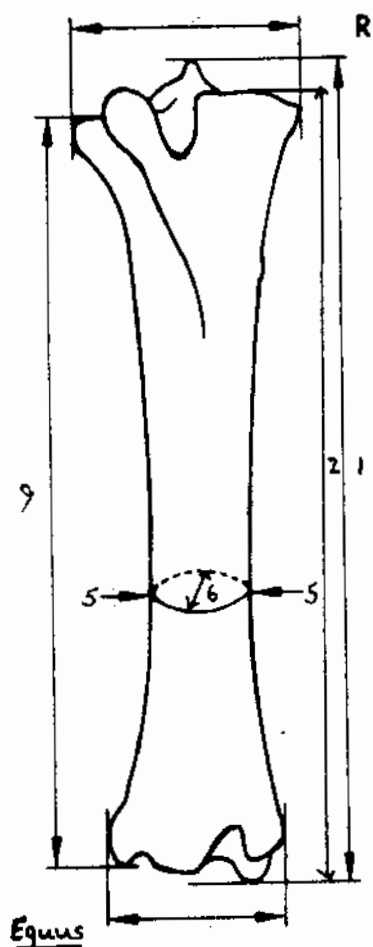
FEMUR

RJ	VD		
1	GL	Greatest length (= 11 in some)(+)	LI
2	GLC	Greatest length from caput. (+)	L2
3	Bd	Greatest breadth distal end	DB
4		Lateral condyle width	LCW
5		Medial condyle width	MCW
6		Greatest depth distal end	DD
7	SD	Smallest depth diaphysis (+)	MB
8		90° at SD	MD
9	DC	Greatest depth caput. (+)	HØ
10	Bp	Greatest breadth proximal end	HT



PATELLA

RJ	VD	
1	GL	Maximum length
2	GB	Maximum breadth



TIBIA

RJ VD

I GL Greatest length (+)

2

3 Bp Greatest breadth proximal end (+)

4

5 SD Smallest breadth diaphysis (+)

6 90° at above

7 Bd Greatest breadth distal end

8 Dd Greatest depth distal end (equids + lagomorphs) DD

9 Ll Lateral length on outer side (horse)

IO Spare

LI

L2

PB

PD

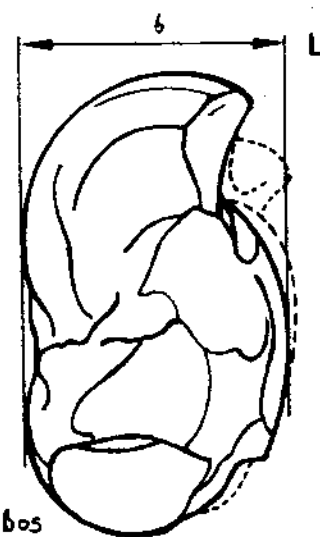
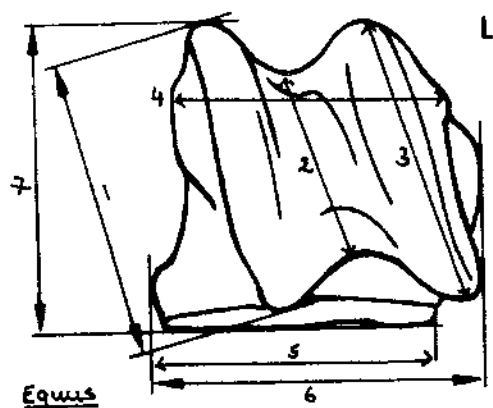
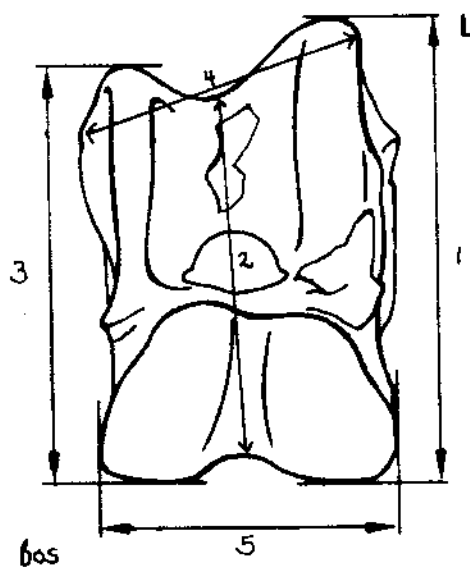
MB

MD

DB

FIBULA

I Greatest length only is measured

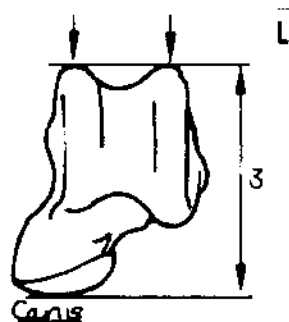


HORSE

TALUS (ASTRAGALUS)

RJ VD

- 1 LmT Length medial trochlea (+) A
- 2 Length between troch. B
- 3 Length lateral trochlea C
- 4 Proximal breadth D
- 5 Distal breadth E
- 6 GB Greatest breadth (board) (-)
- 7 GH Greatest height (board) (-)
- 8 BFd Breadth facies art. dist. (+)

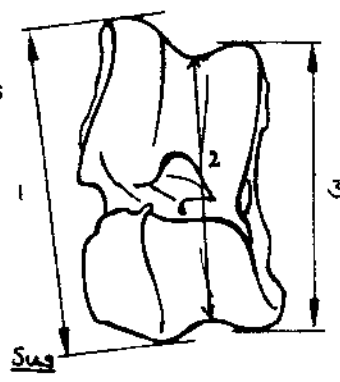


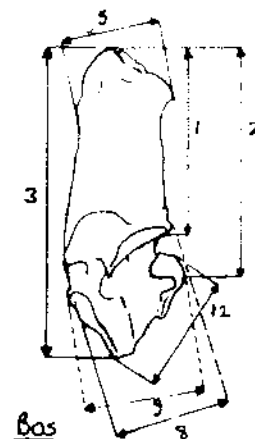
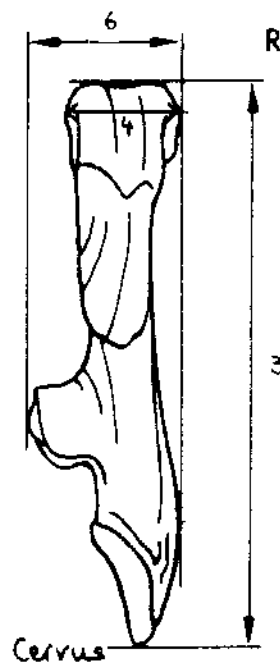
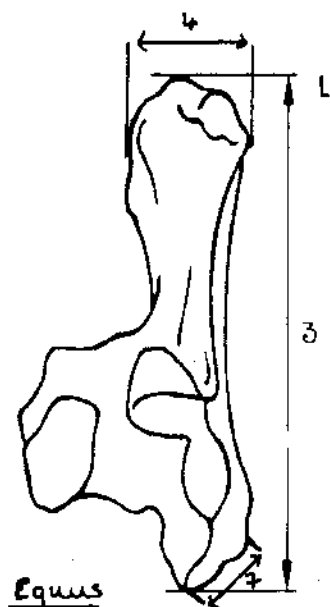
ARTIODACTYL

RJ VD

- 1 GL1 Greatest length lateral half (+)
- 2 Length middle
- 3 GLM Greatest length medial half (+)
- 4 Proximal breadth
- 5 Bd Greatest breadth distal end
- 6 DL Greatest depth lateral half (+)
- 7 Spare
- 8 Spare

NB Sus: only lengths





CALCANEUS

RJ VD

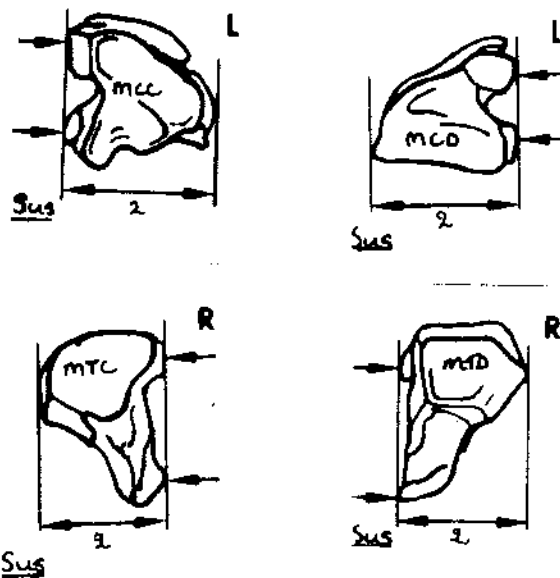
- I Max. distance most prox. calc. tuber to midpoint prox. art. face lat. prox. facet
- 2 distal most point proximal facet
- 3 GL Greatest length (+)
- 4 Greatest breadth tuber calcanei
- 5 Max. depth
- 6 GB Max breadth
- 7 Distal lateral crest to medial point distal facet
- 8 Min. distance dorsal protr. prox. facet & pt. on plantar surf. calcaneum opp it
- 9 distal .. & medial most pt. same facet on plantar s.
- IO distal most pt. axial lat. ridge plantar s.
- II AD4 Distance most distal pt. axial lateral ridge plantar & most prox. pt. distal most facet
- I2 LDFprox & most distal pts distal most facet
- NB II and I2 may only be for S/G

METAPODIALS

RJ VD

1	GL	Greatest length (+)	L
2	Bp	Greatest breadth proximal end (+)	PB
3	Dp	Greatest depth proximal end (not all)	PD
4	SD	Smallest breadth diaphysis (+)	MB
5		90° at above	MD
6	Bd	Greatest breadth distal end (+)	DB
7		Minimum medial depth distal condyle	MDDI
8		Maximum	MDDP
9		Minimum lateral depth distal condyle	LDDI
10		Maximum	LDDP
11		Width medial condyle distally (taken distally)	WMC
12		 lateral	WLC
13	DD	Smallest depth diaphysis	
14	DFB	Maximum breadth at distal fusion point	
15	DFD	Maximum depth	
16	L1	Lateral length (horse only)	

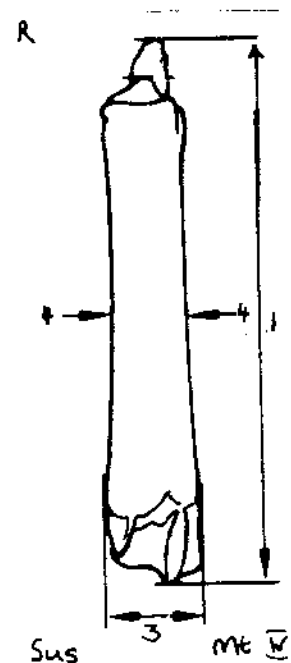
Measurements 7 to 12 are for Bovidae

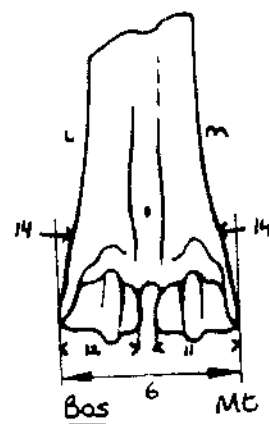
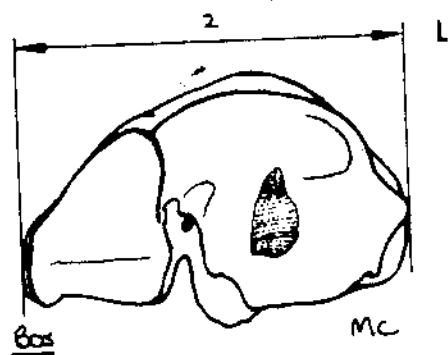
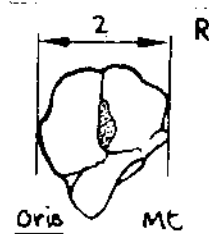
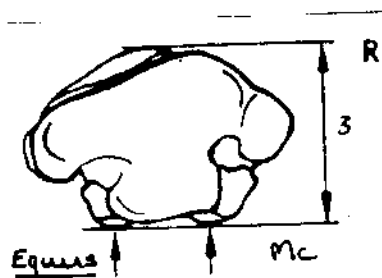
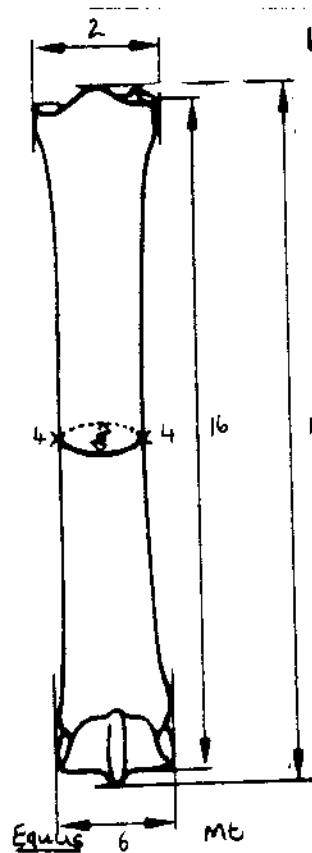
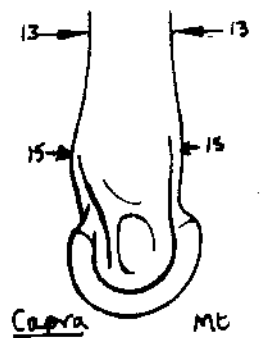
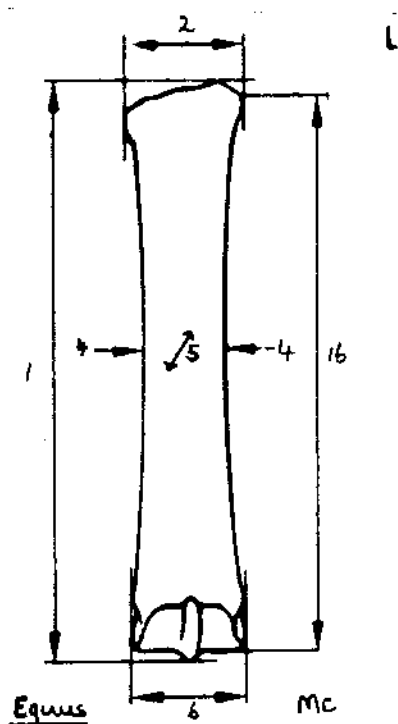


3RD & 4TH METACARPUS (for Sus: sp)

RJ VD

1	GL	Greatest length (-)
2	Bp	Greatest breadth proximal end (-)
3	Bd	Greatest breadth distal end (+)
4	B	Breadth in middle diaphysis

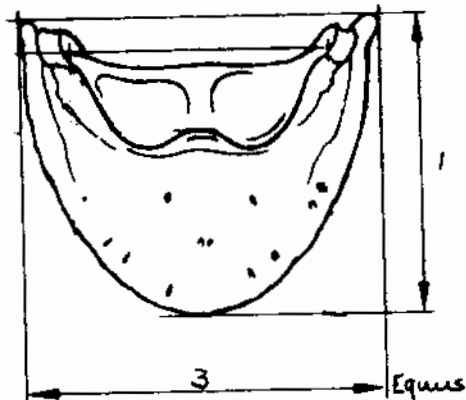




PHALANX I & PHALANX II

RJ VD

I	GL?	LP
2	Bp Greatest breadth proximal end (+)	PB
3	Dp Proximal depth	PD
4	SD Smallest breadth of diaphysis	MB
5	90 at above	MD
6	Bd Greatest breadth distal end	DB
7		MDD
8		LDD
9	BFp Greatest breadth Facies articularis proximalis. Equids	
10	BFd distalis ..	
11	GLpe Greatest length peripheral (abaxial) half. GL in artos	LL
12	Spare	



PHALANX III (HORSE)

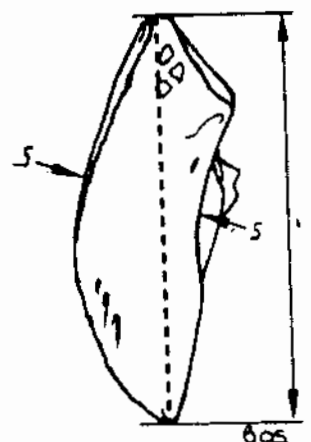
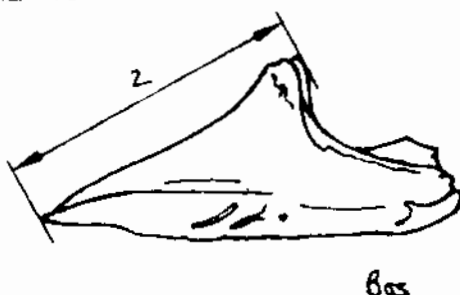
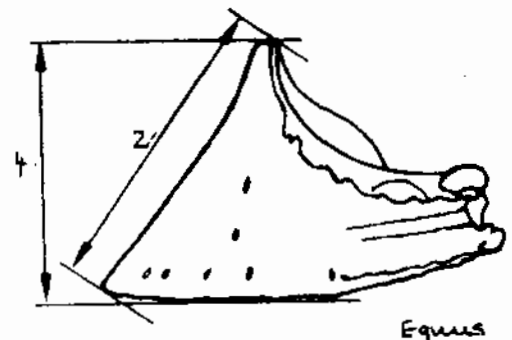
RJ VD

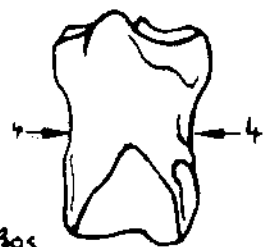
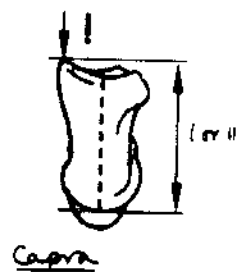
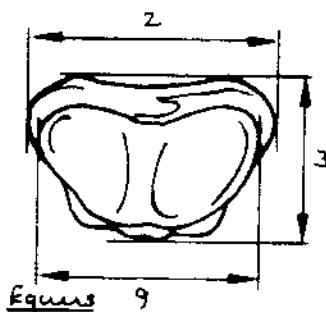
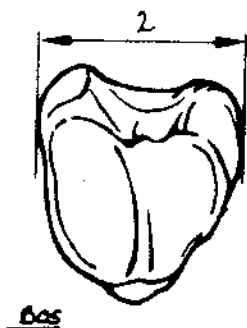
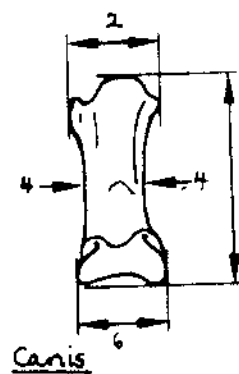
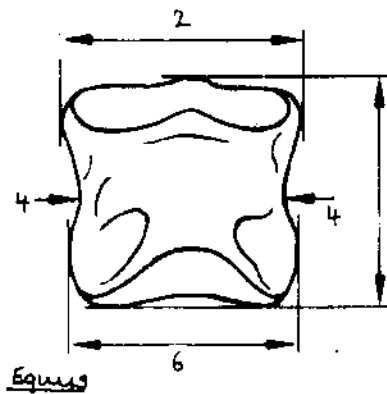
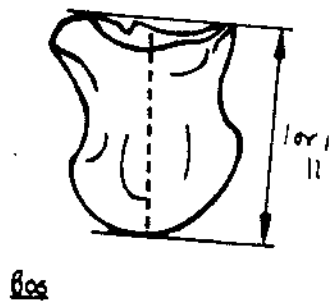
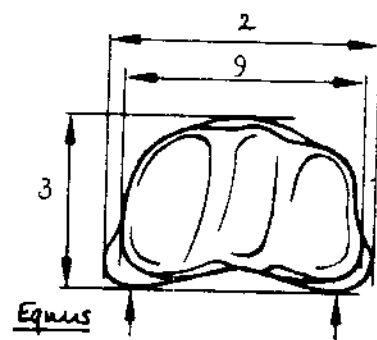
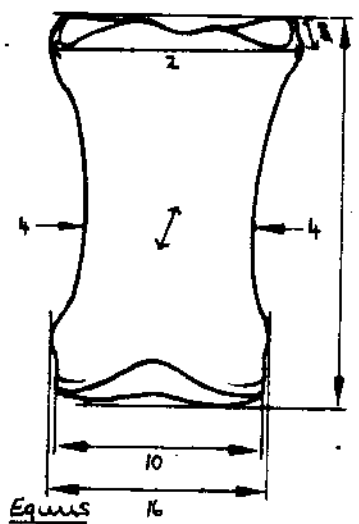
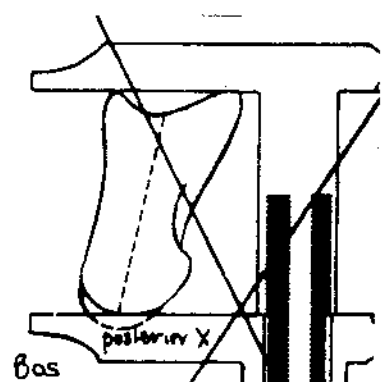
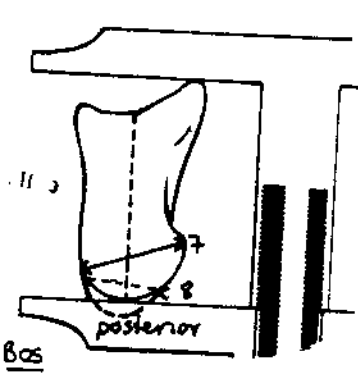
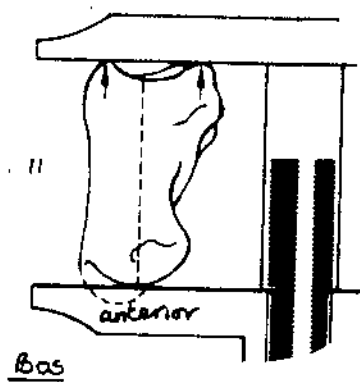
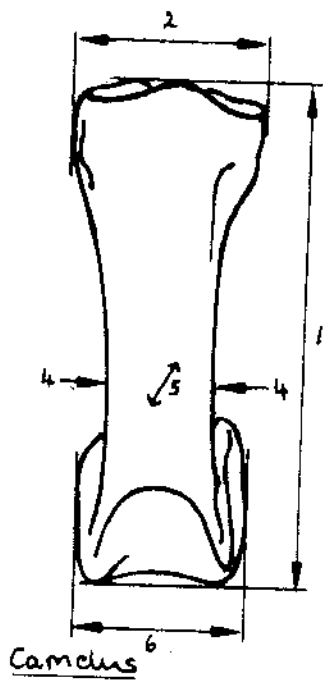
I	GL Greatest length (+)	LI
2	Ld Length of dorsal surface	L2
3	GB Greatest breadth (+)	P3
4	HP Height (board)	PD
5	Spare	

PHALANX III (ARTIODACTYL)

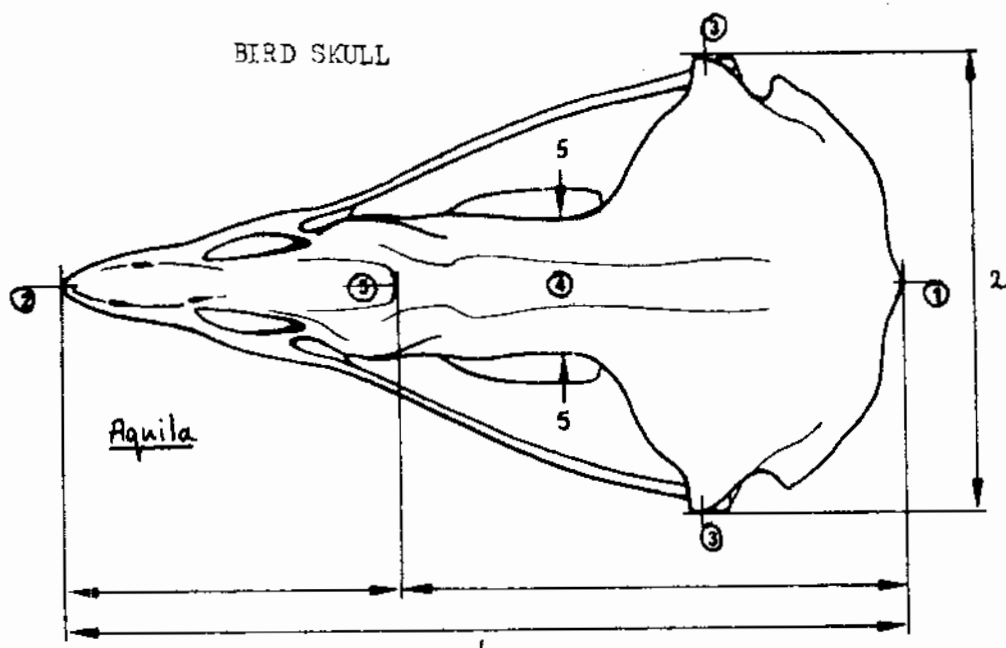
RJ VD

I	DLS Diagonal length sole	LI
2	Ld Length dorsal surface	L2
3	Proximal breadth	PB
4	Proximal depth	PD
5	MBS Breadth in midsole	

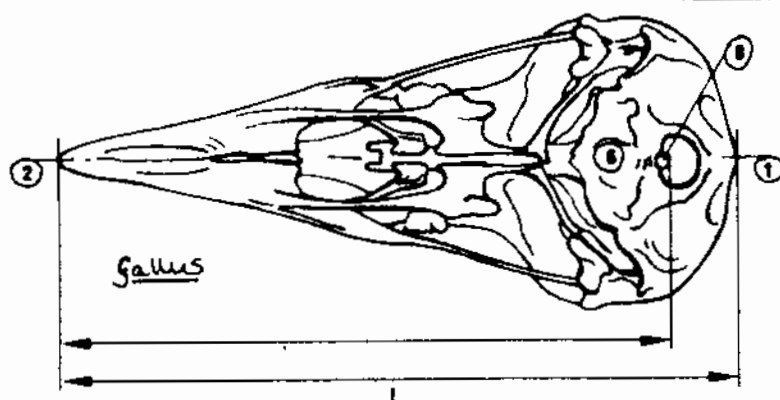
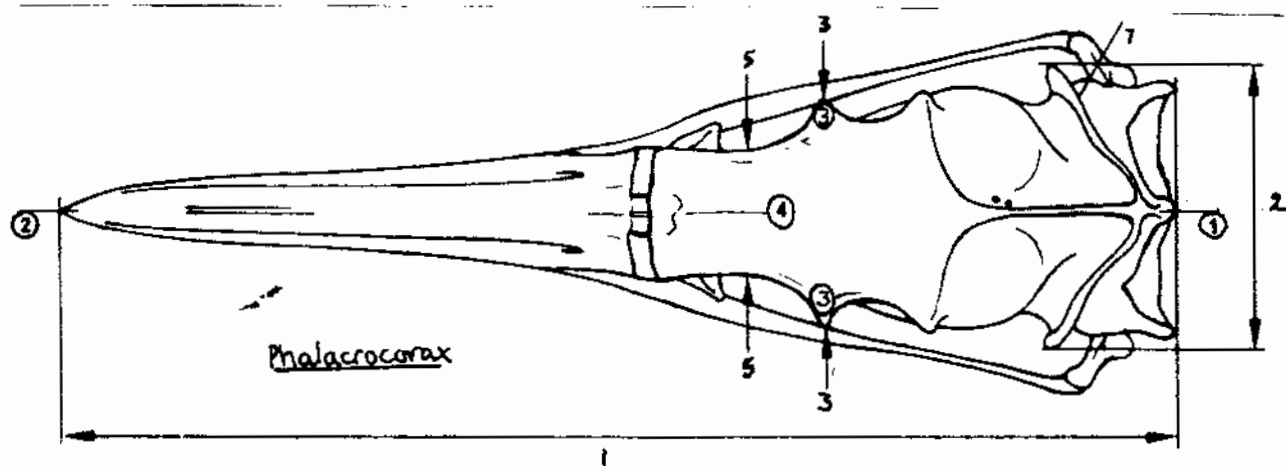




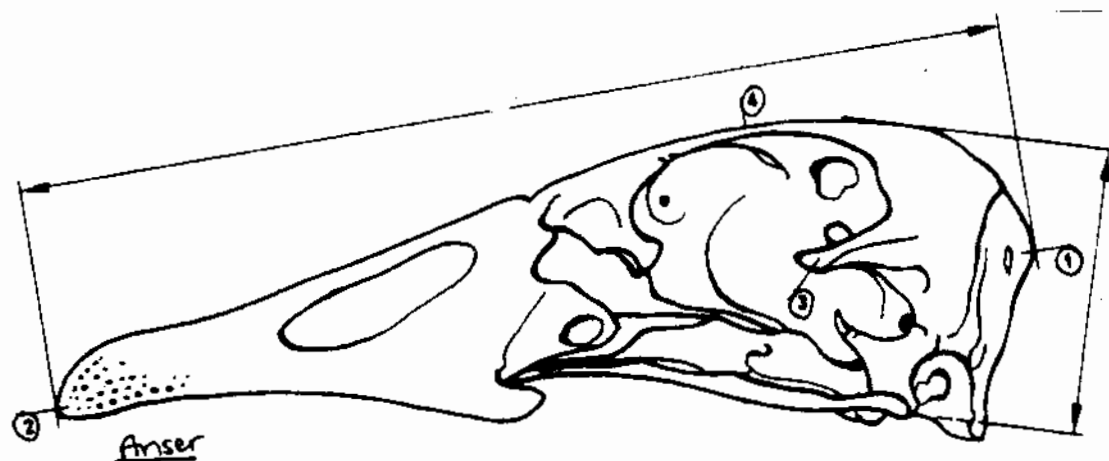
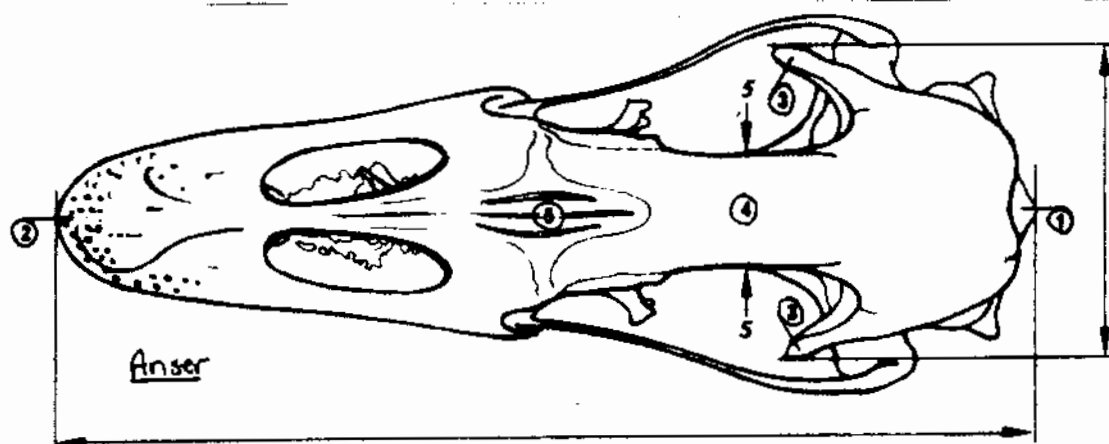
BIRD SKULL



- ① = Protuberantia occipitalis externa
- ② = Apex praemaxillaris
- ③ = Processus postfrontalis
- ④ = Pars nasalis of the frontal bone
- ⑤ = Processus frontalis of the praemaxilla
- ⑥ = Basitemporale (= Basisphenoid)
- ⑦ = Linea nuchalis superior
- ⑧ = Condylus occipitalis



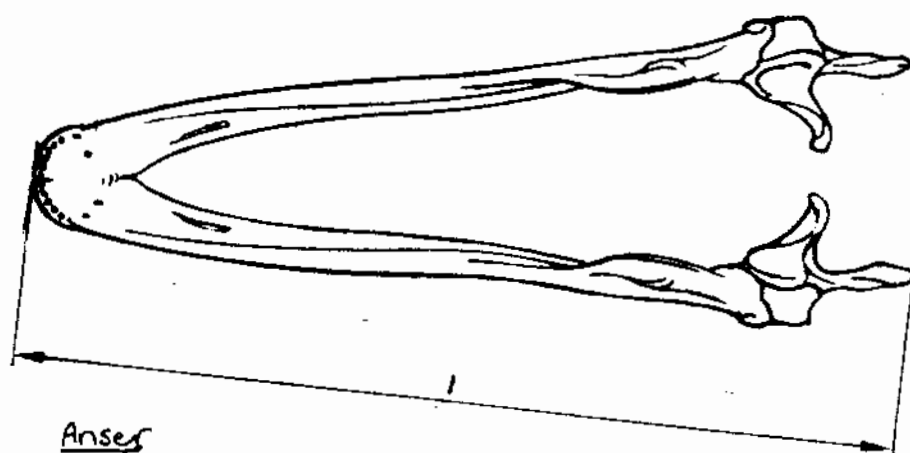
BIRD SKULL



RJ VD

- 1 GL Greatest length
- 2 GB Greatest breadth
- 3 GBP Greatest breadth across processus post frontales
- 4 GH Greatest height
- 5 SBO Smallest breadth between orbits on dorsal side

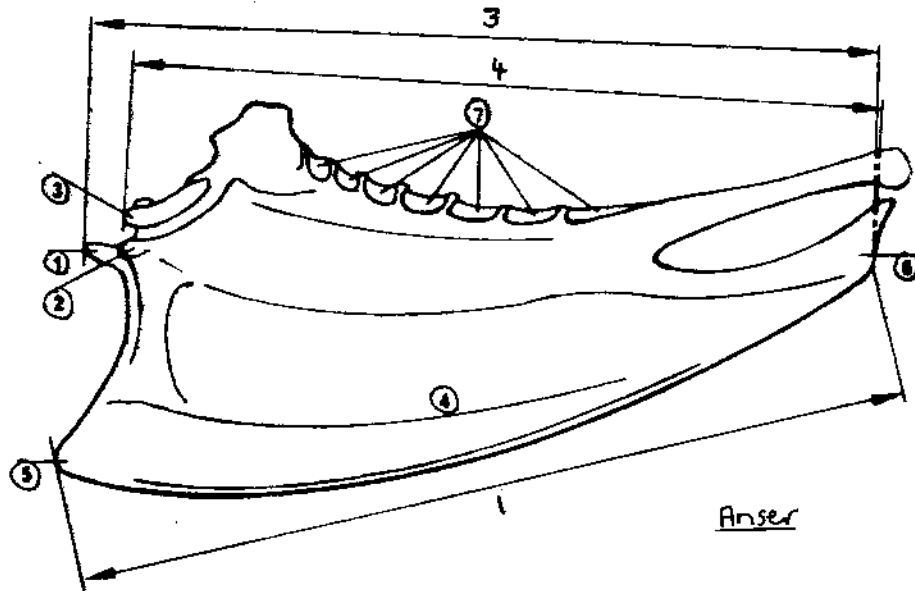
BIRD MANDIBLE



RJ VD

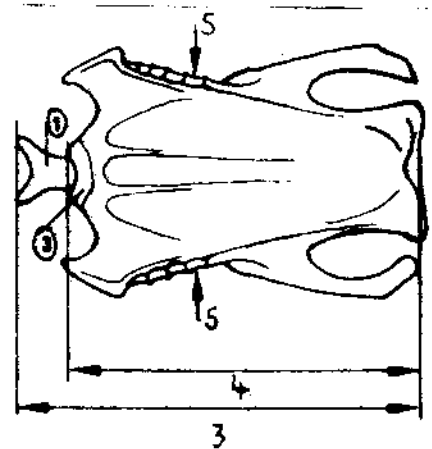
- 1 GL Greatest length

BIRD STERNUM

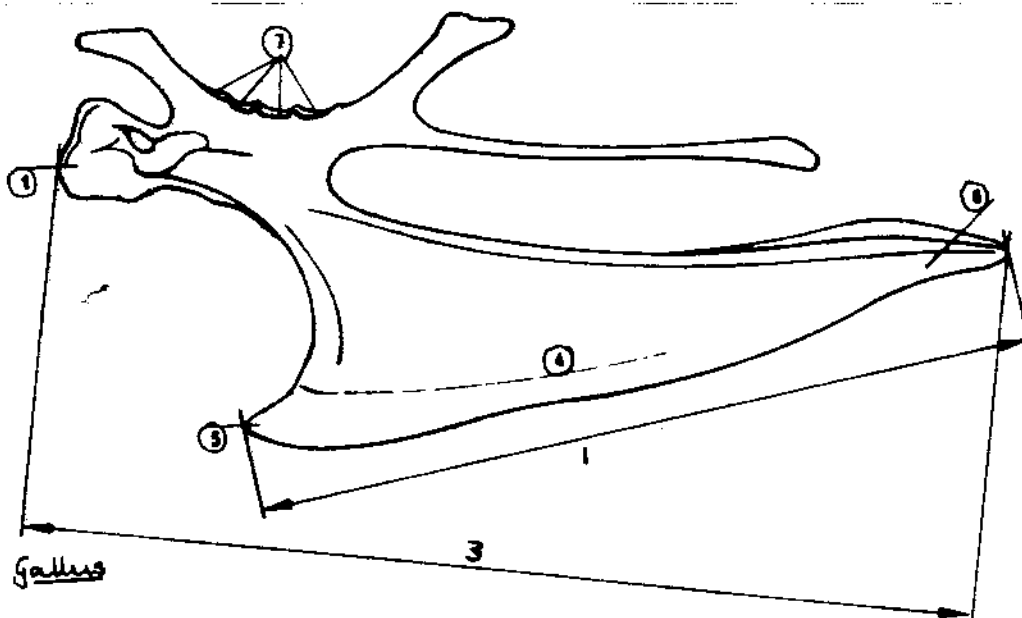


Anser

- ① = Manubrium sterni
- ② = Labium ventrale s. externum
- ③ = Labium dorsale s. internum
- ④ = Crista sterni s. Carina
- ⑤ = Apex cristae sterni
- ⑥ = Metasternum
- ⑦ = Facets of the costosternal articles

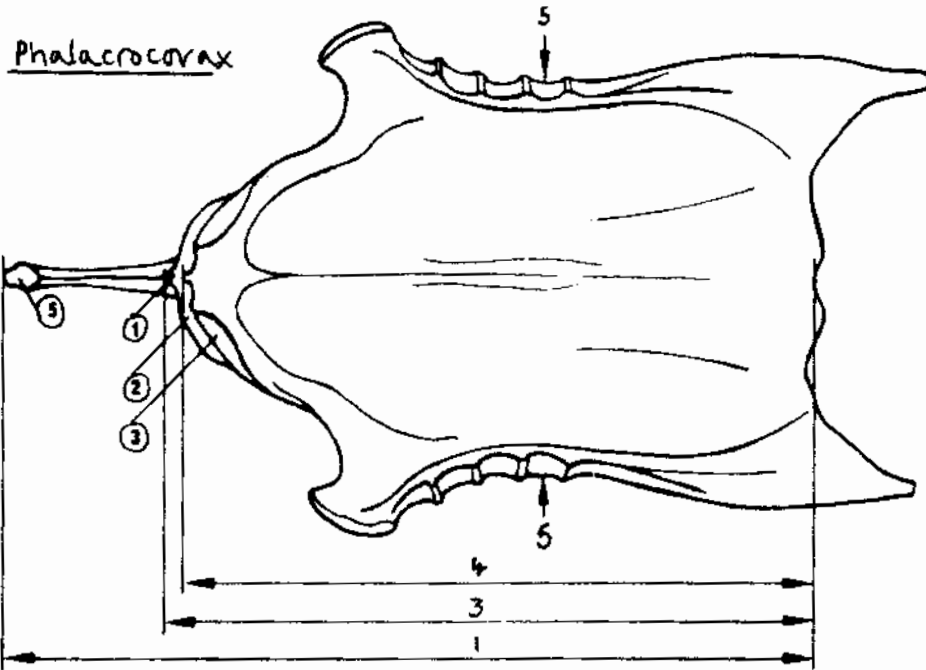


Corvus



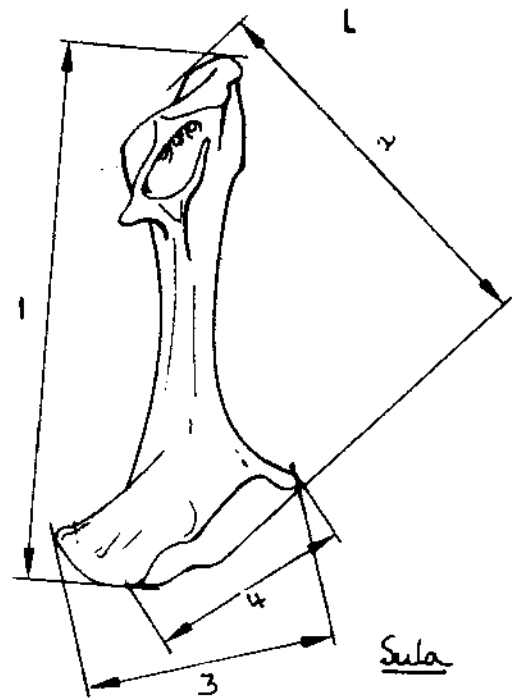
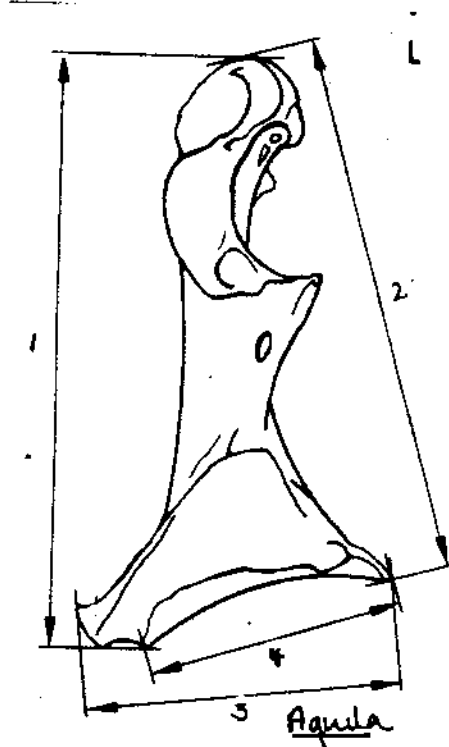
Gallus

BIRD STERNUM



RJ	VD		
1	LC	Length cristae sterni (+)	A
2			E
3	LM	Length Manubrium Sterni (+)	
4	dL	Dorsal length	
5	SBF	Smallest breadth between facets (+)	

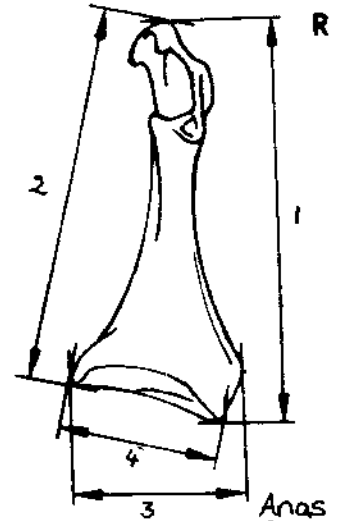
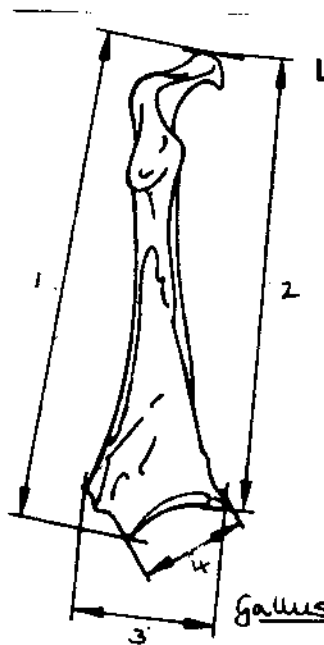
BIRD CORACOID



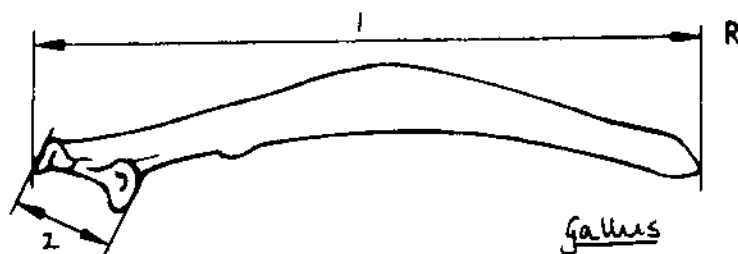
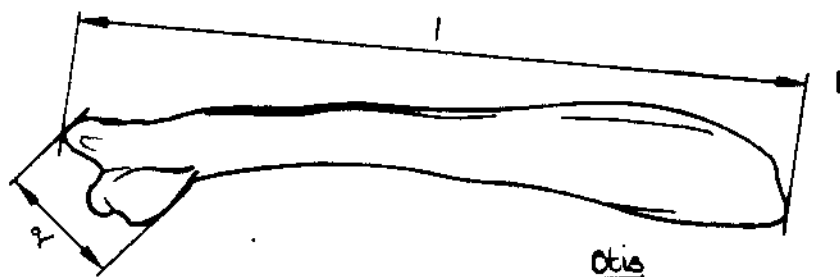
- RJ VD
- 1 GL Greatest length (diagonal) to proc. lat. in Aquila and Sula
 - 2 LM Medial length (+)
 - 3 Bb Greatest basal breadth (+)
 - 4 BF Breadth Facies articularis basalis (+) (old BB)

FURCULA

- RJ
- 1 Greatest length A
 - 2 Distance between arms F



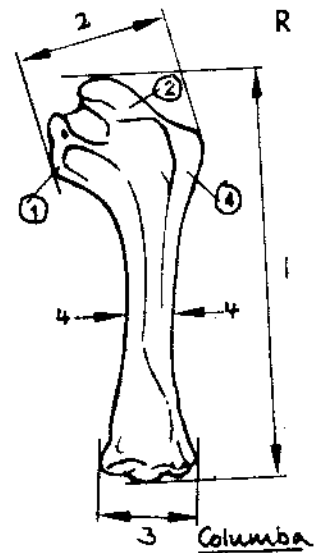
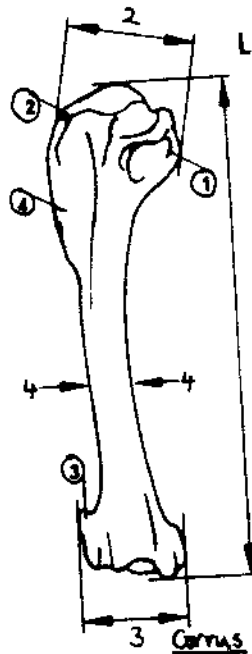
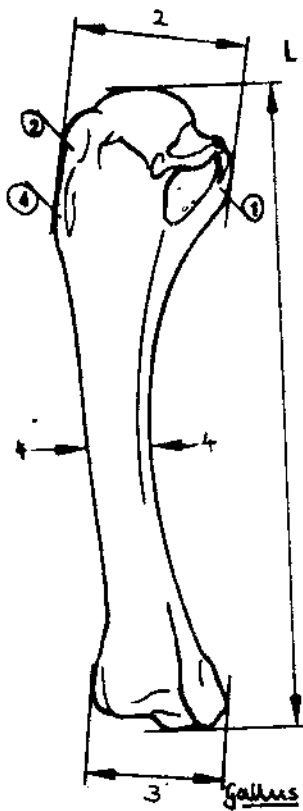
BIRD SCAPULA



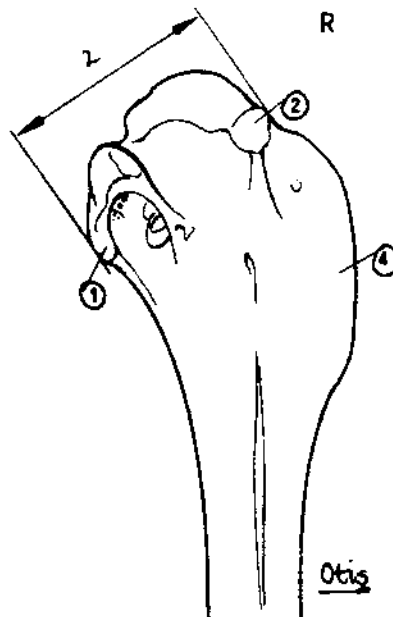
- RJ VD
 1 GL Greatest length (+) A
 2 DiC Greatest cranial diagonal (-)
 (Erbersdobler BC for geese)

BIRD HUMERUS

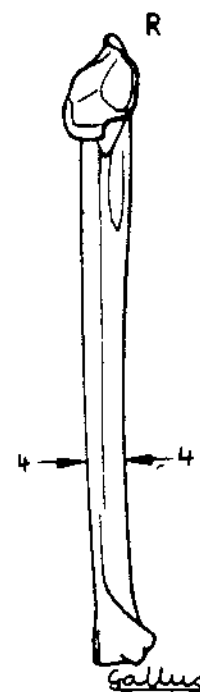
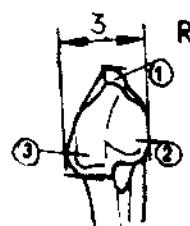
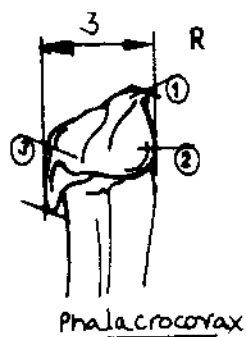
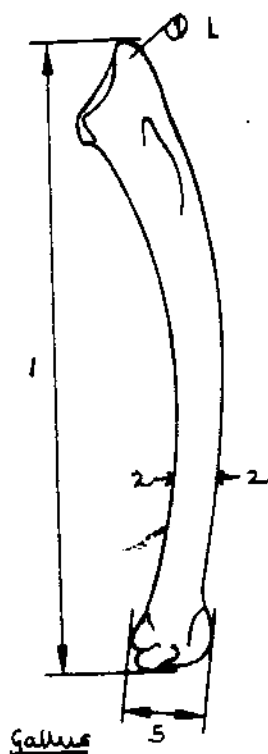
- ① = tuberculum mediale
- ② = tuberculum laterale
- ③ = Proc. supracondylaris radialis
- ④ = crista lateralis



- RJ VD
- 1 GL Greatest length (+)
 - + 2 Bp Proximal breadth (-) excludes crista but is max. from tub. lat. to tub. med.
 - 3 Bd Distal breadth
 - 4 SC Smallest breadth corpus (+)
 - + This measurement in pigeons (Pisk) and other small birds is in fact Dip Proximal diagonal width.



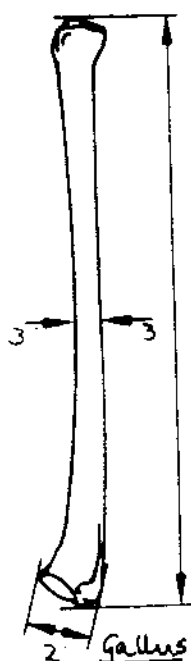
BIRD ULNA



- Gallus
- ① = olecranon
 - ② = Fac. art. med.
 - ③ = Fac. art. lat.

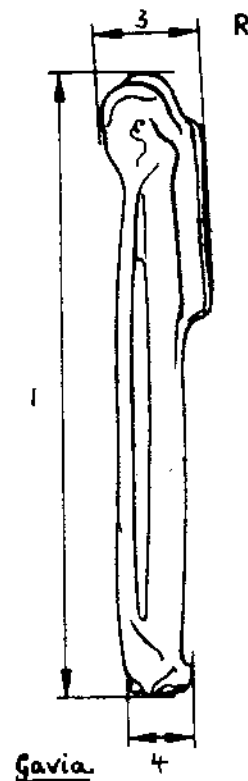
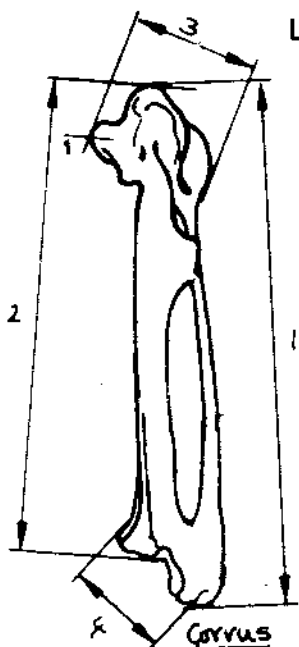
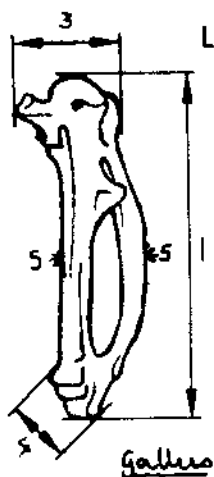
RJ	VD		
1	GL	Greatest length (+)	A
2		Minimum depth of shaft	D
3	Bp	Proximal breadth (max) (-)	(Erbersdobler Bp is different)
4	SC	Smallest breadth corpus	
5	Did	Diagonal (max) distal (+)	

BIRD RADIUS



RJ	VD		
1	GL	Greatest length (+)	A
2	Bd	Distal breadth (+)	
3	SC	Smallest breadth corpus	
4		Spare	

BIRD CARPOMETACARPUS (3RD METACARPAL)

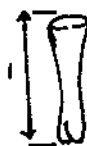


RJ VD

- 1 GL Greatest length (+)
- 2 L Length metacarpus 11 (only in eg passeriformes)
- 3 Bp Greatest breadth proximal extremity (+)
- 4 Did Diagonal of distal end (only articular surface)
- 5 (ES)(Erbersdobler) max. width both shafts

ANT. PHALANX

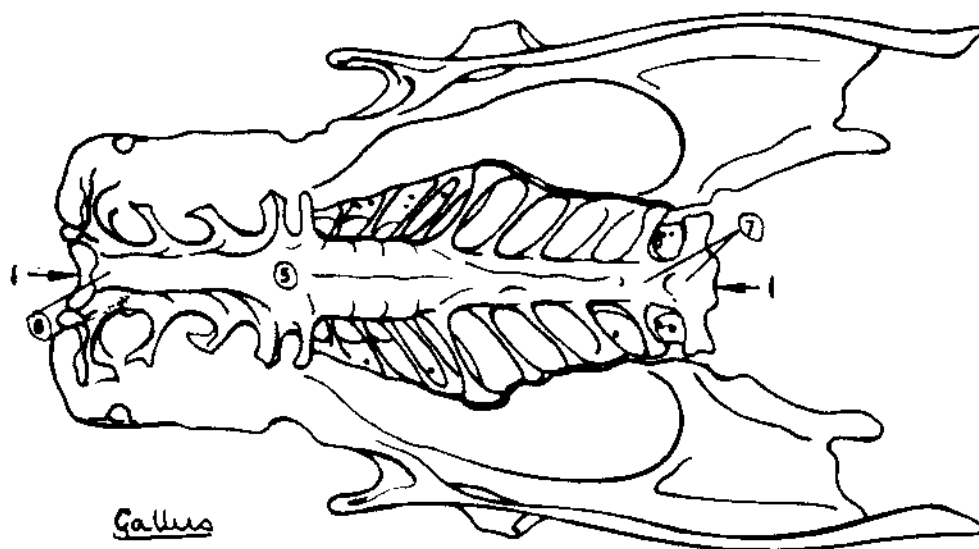
POST. PHALANX



RJ

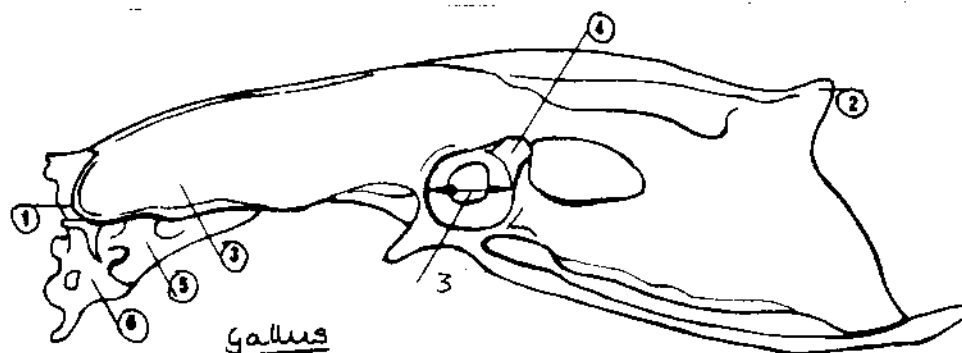
- 1 Greatest length

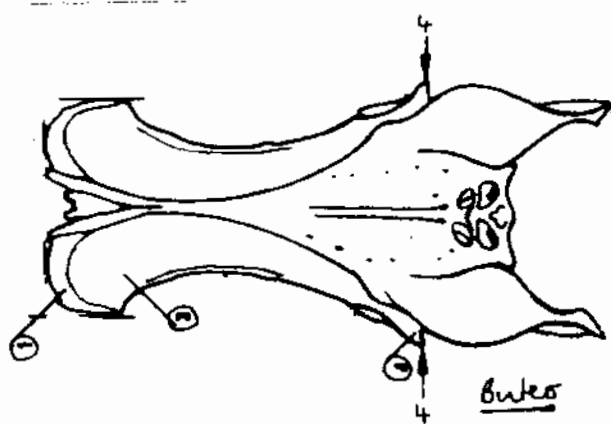
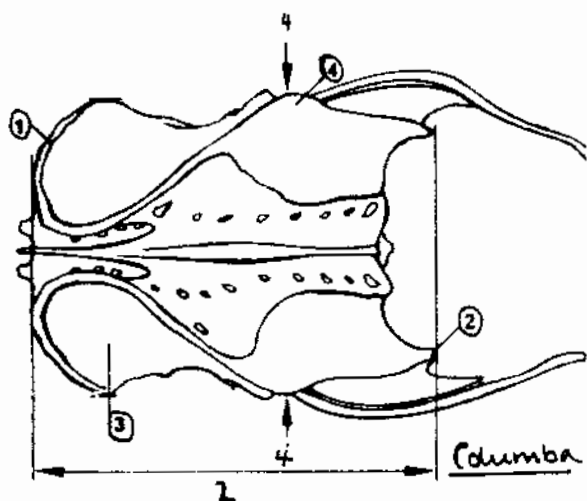
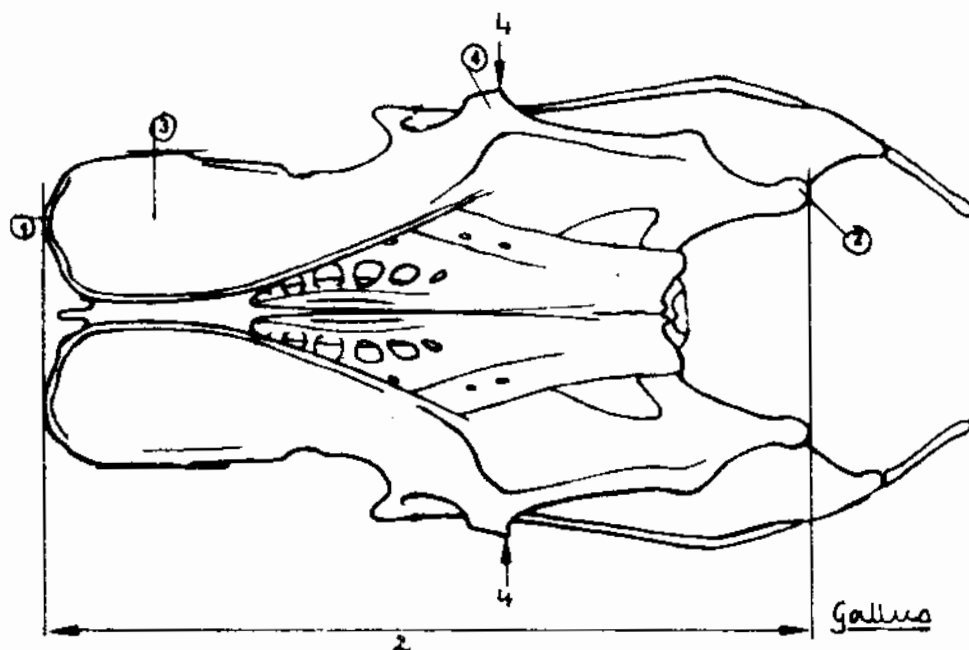
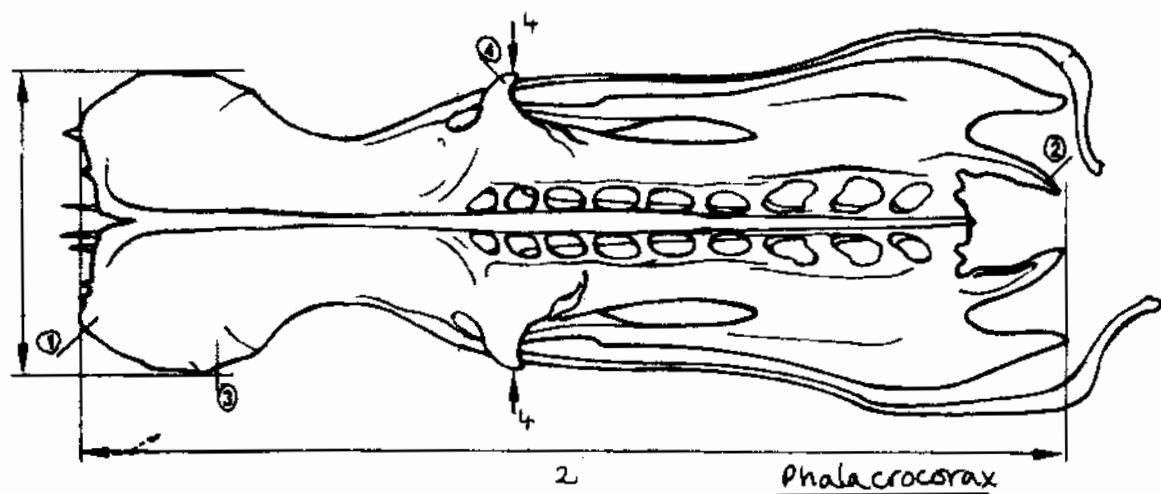
BIRD OS COXAE AND SYNSAURUM



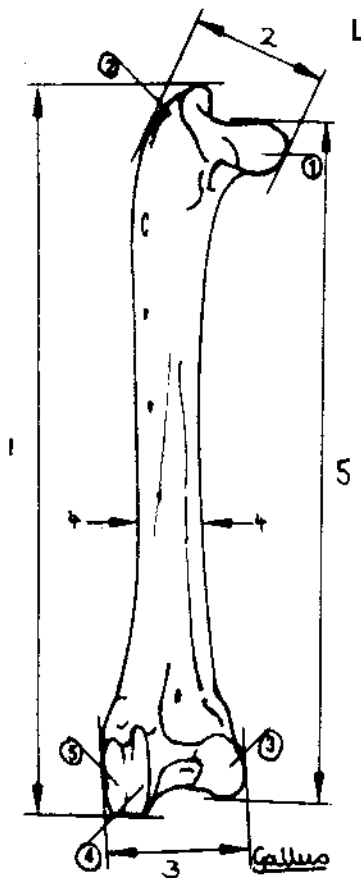
- ① = Margo iliocranialis
- ② = Spina iliocaudalis
- ③ = Pars glutea
- ④ = Antitrochanter
- ⑤ = Os lumbosacrale
- ⑥ = Vertebra thoracosynsacralis
- ⑦ = Vertebrae caudales

- RJ VD
- 1 LV Length along vertebrae (BSS 1)
 - 2 LS Length pelvis to spine iliocaudales Some spp only
 - 3 DiA Diameter acetabulum (-)
 - 4 BA Breadth across 2 antitrochanters (+)

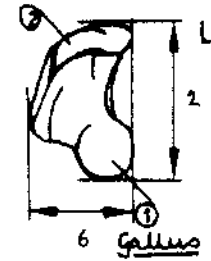




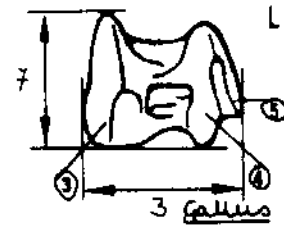
BIRD FEMUR



- ① = Caput femoris
- ② = Trochanter major
- ③ = Condylus medialis
- ④ = Condylus lateralis
- ⑤ = Condylus fibularis

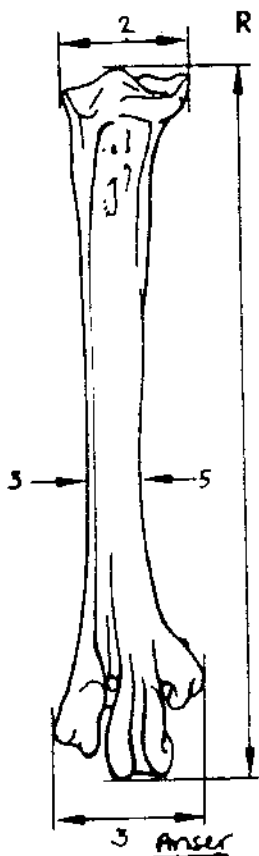


RJ	VD			
1	GL	Greatest length (+)		A
2	Bp	Greatest breadth proximal end (Erbersdobler Dp)		B
3	Bd	Greatest breadth distal end		C
4	SC	Smallest breadth corpus (-) same plane as Bd		D
5	LM	Medial length (+)		
6	Dp	Greatest depth proximal end (Erbersdobler Bp)		
7	Dd	Greatest depth distal end		
8		Spare		

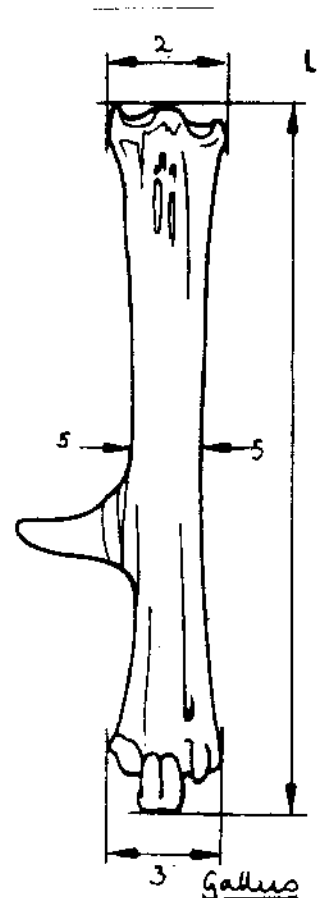


BIRD TARSOMETATARSUS

RJ	VD			
1	GL	Greatest length (+)		A
2	Bp	Greatest proximal breadth (+)		B
3	Bd	Greatest distal breadth		C
4		Length of spur (at back)		A1
5	SC	Smallest breadth corpus		



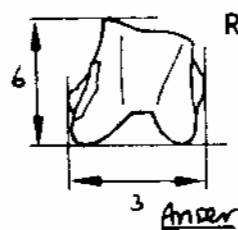
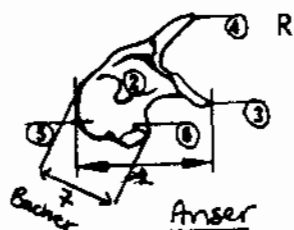
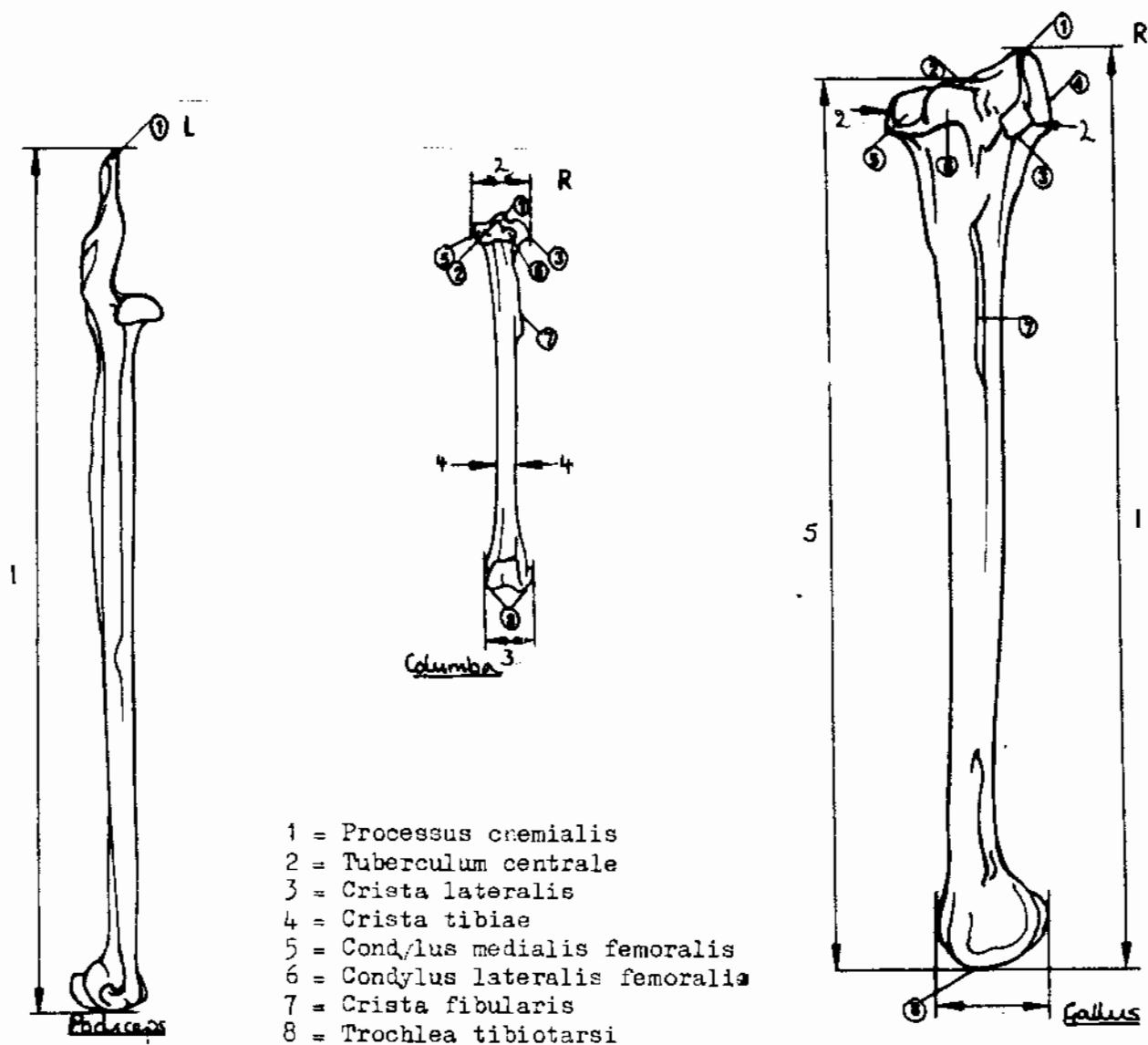
SPUR
Back View. (VENTRAL)



BIRD TIBIOTARSUS

RJ VD

- 1 GL Greatest length (+) A
- 2 Dip Greatest diagonal proximal end (+) B
- 3 Bd Greatest breadth distal end (+) C
- 4 SC Smallest breadth corpus (-) in same plane as Bd D
- 5 La Axial length (tuberculum centrale - most distal troch.)
- 6 Dd Depth distal end (across both condyles)
- 7 (Bp) Proximal width (Bacher)
- 8 Spare



APPENDIX

Drawings of bones with co-ordinates

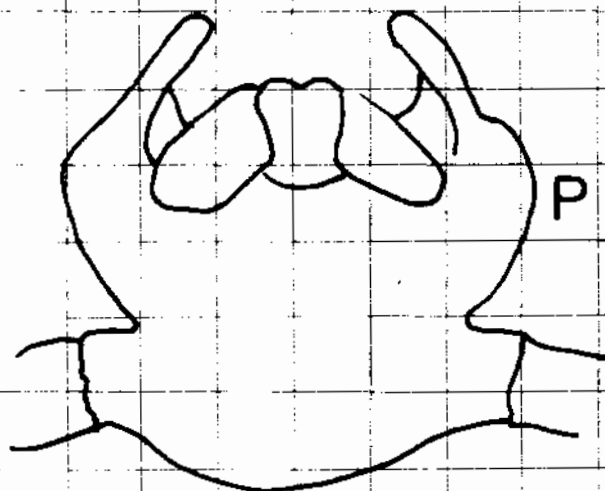
for \$15

Skull

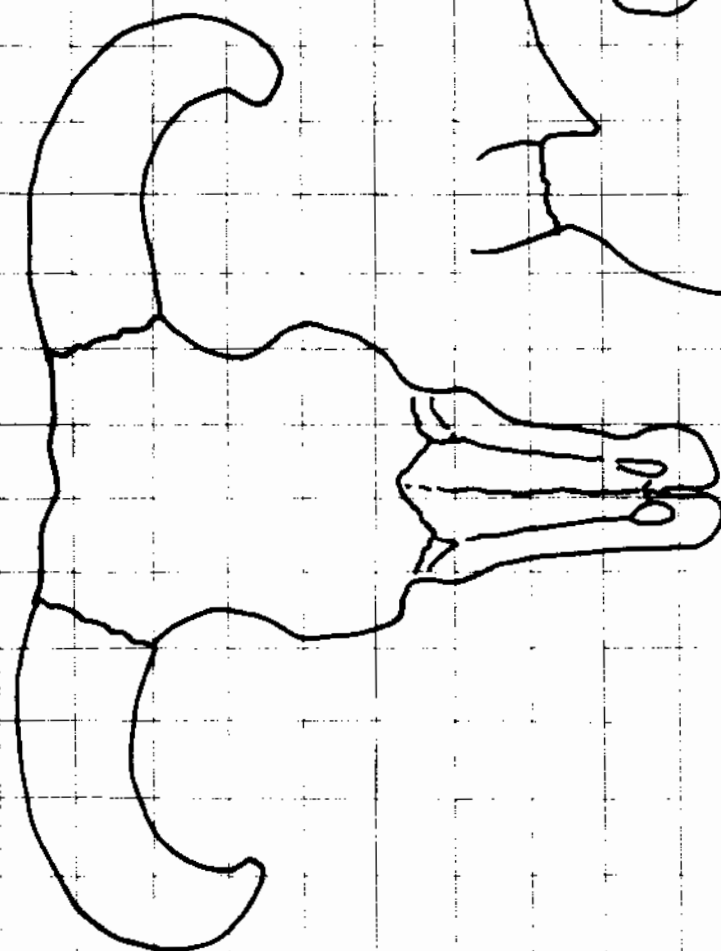
4
3
2
1
2
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8
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08
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06
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04
03
02
01



F
ant



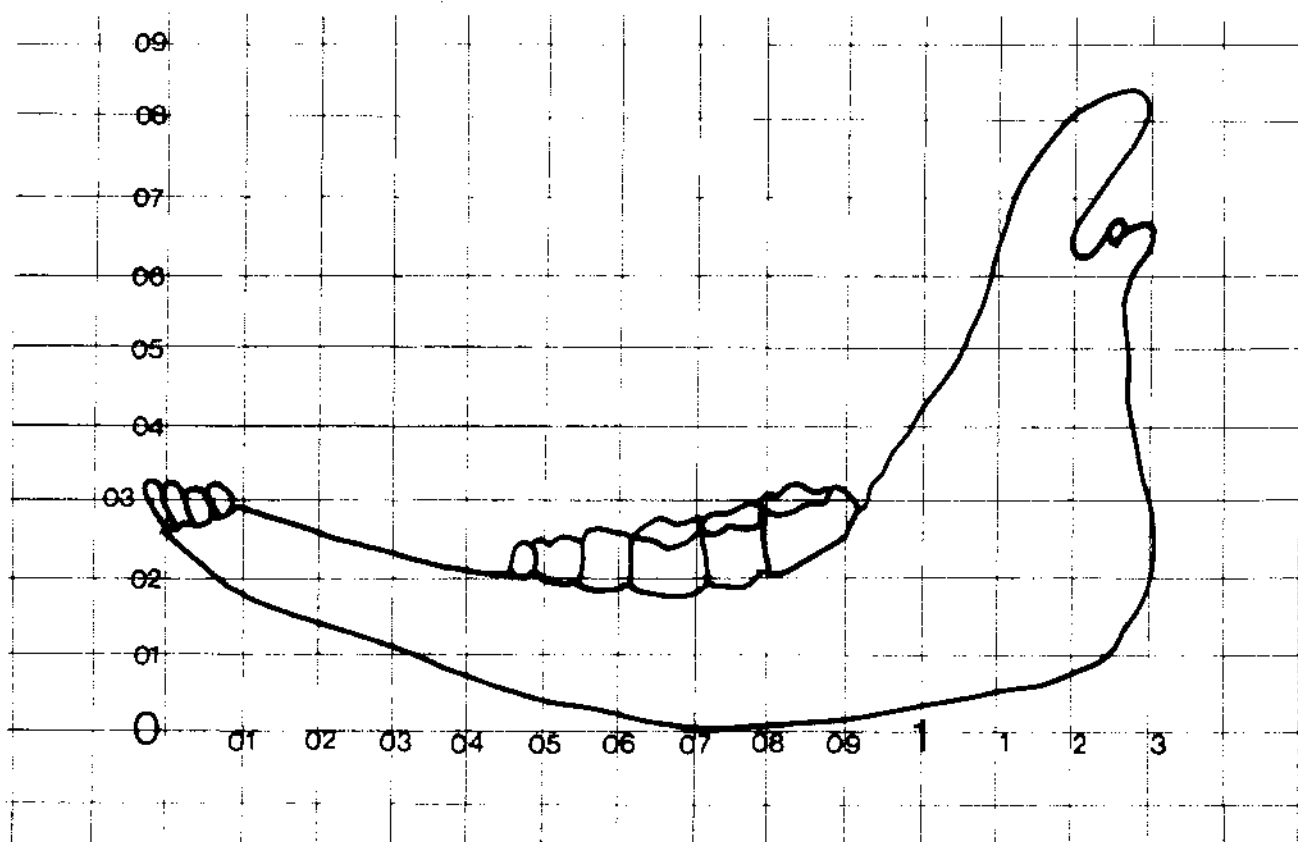
P



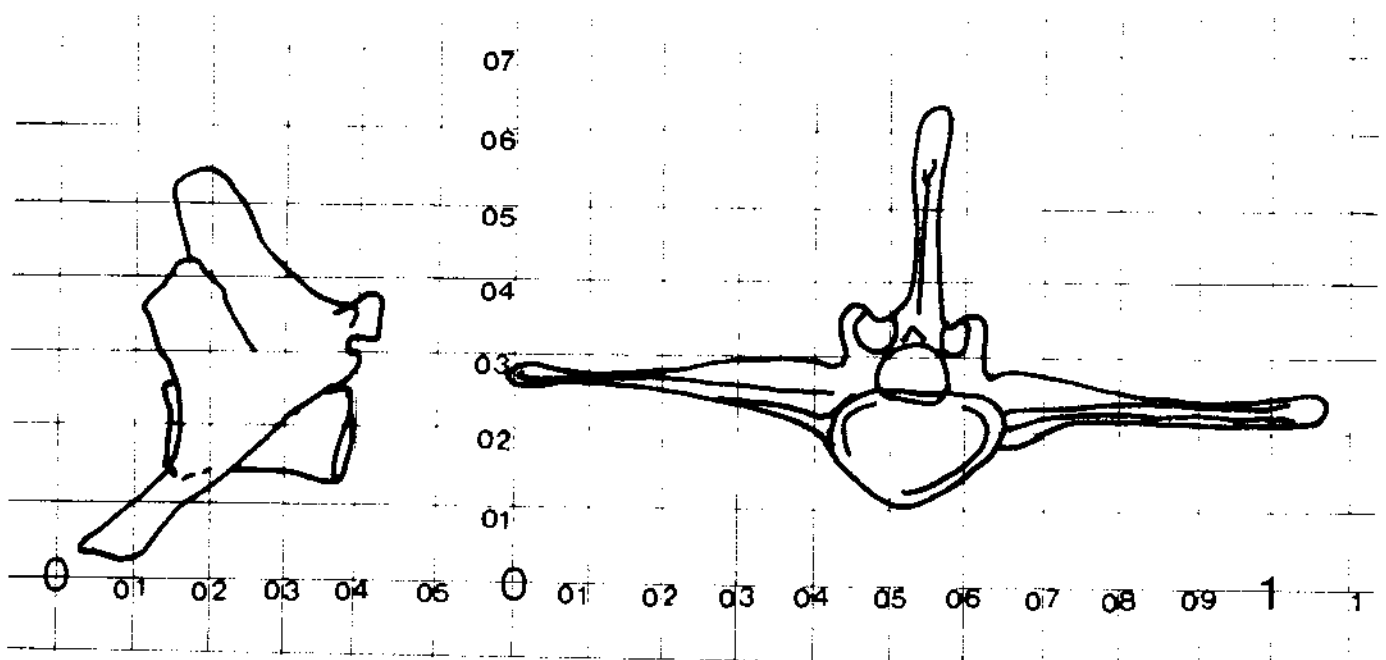
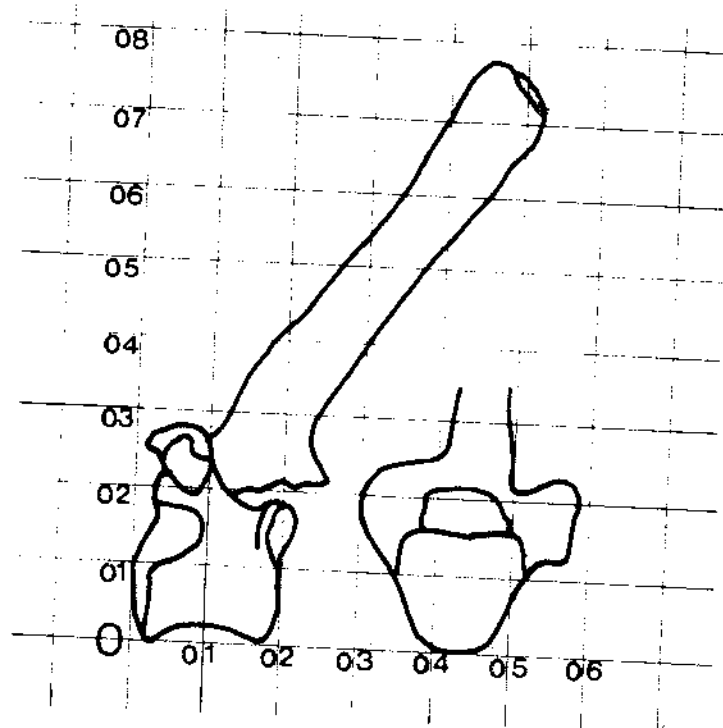
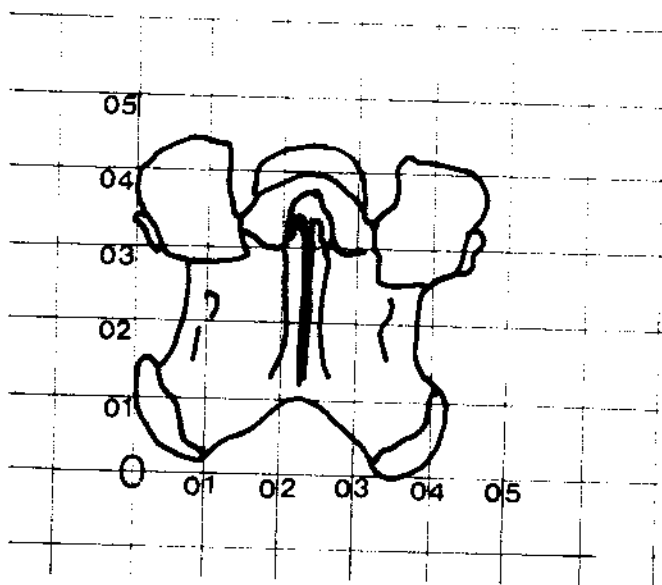
B
post

0 01 02 03 04 05 06 07 08 09 1 1 2 3 4 5 6

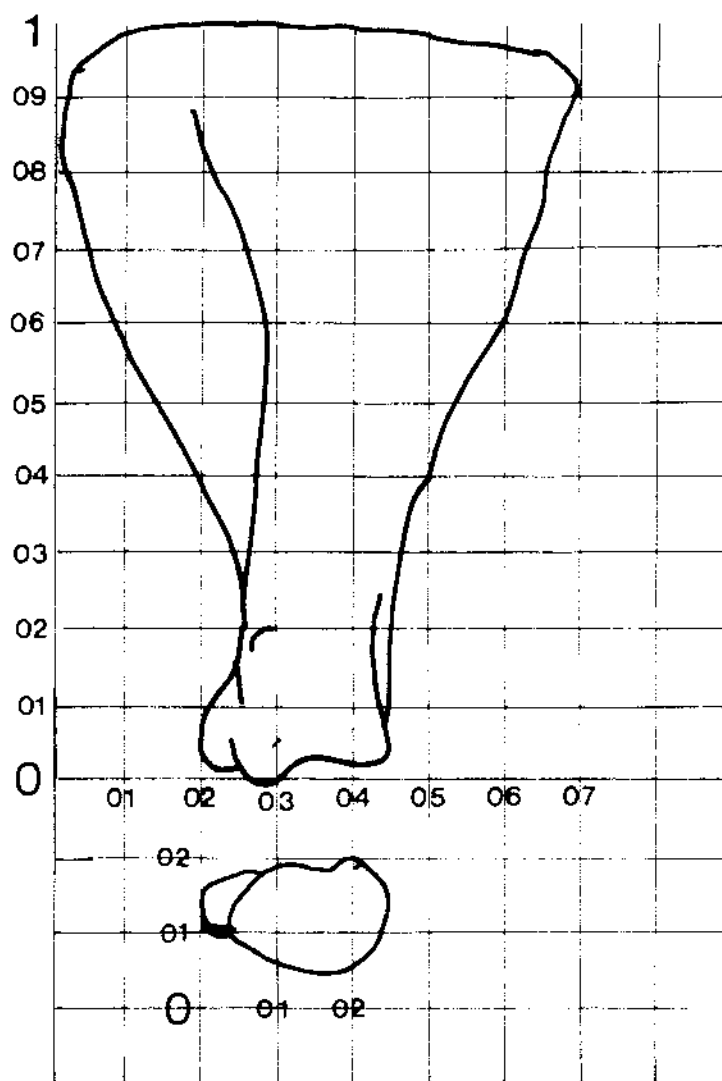
Mandible



Vertebrae



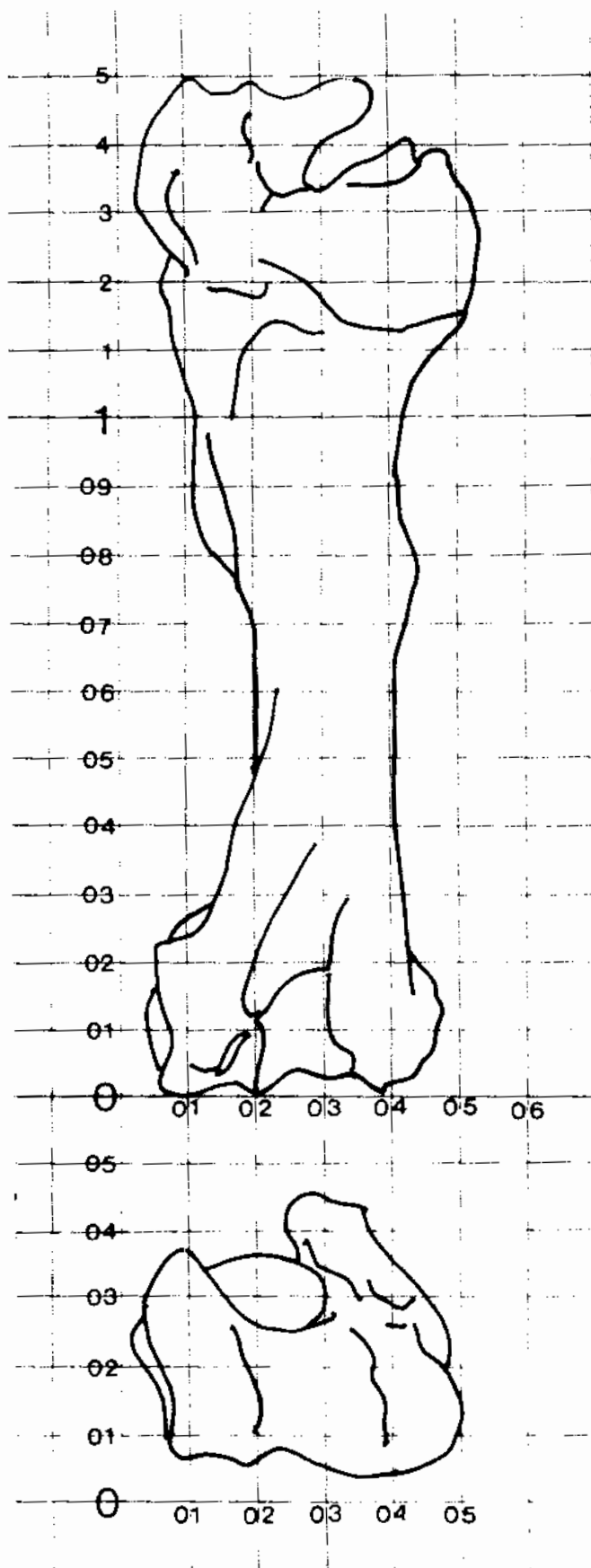
Scapula



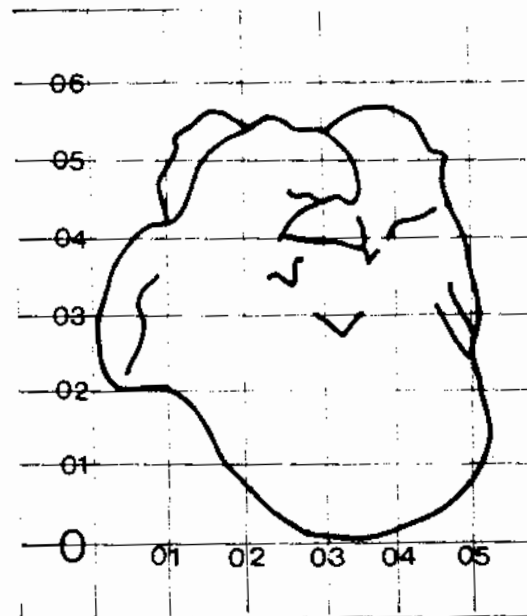
view L(M)

D

Humerus



P I

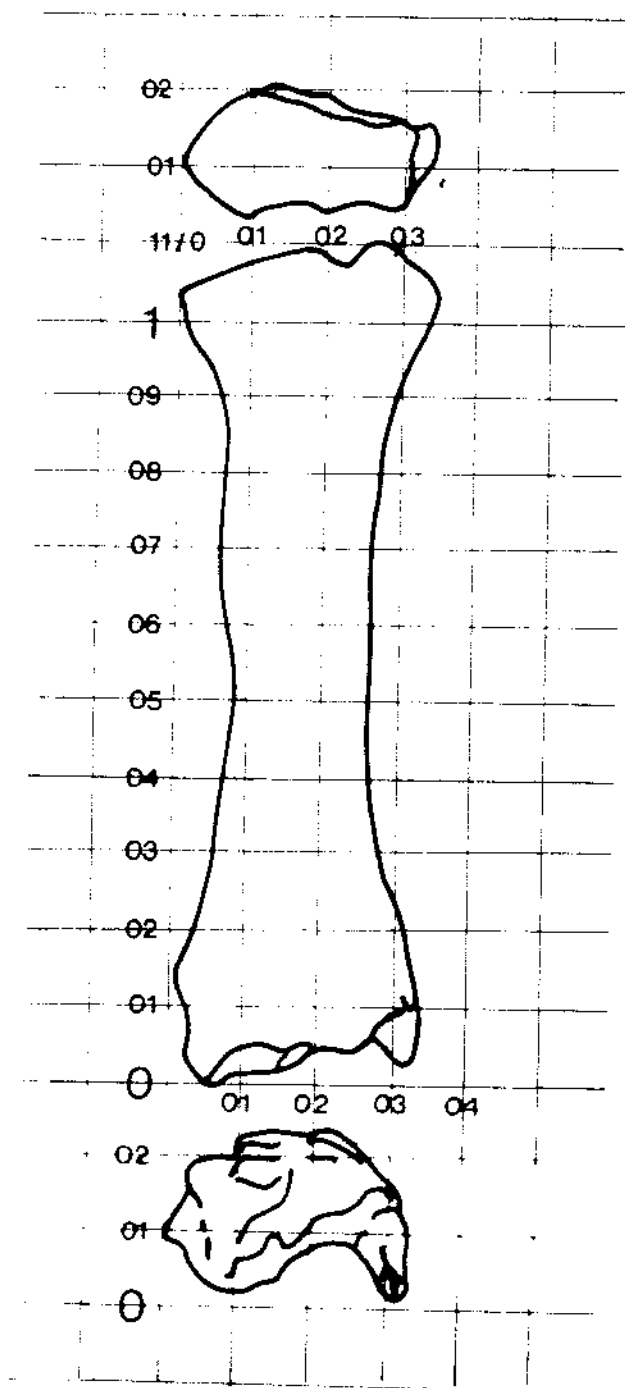


view F.B.L.M.

2

D 3

Radius

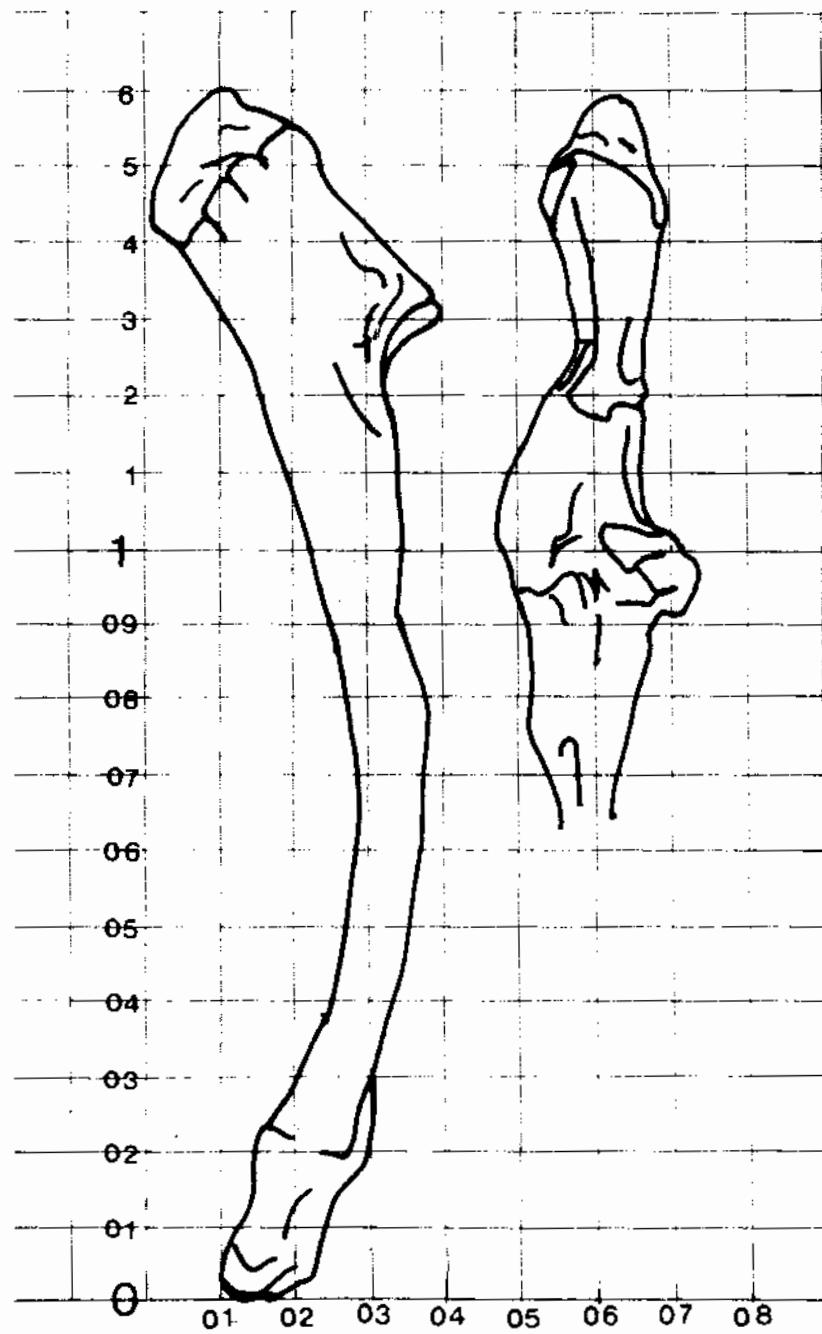


view 1

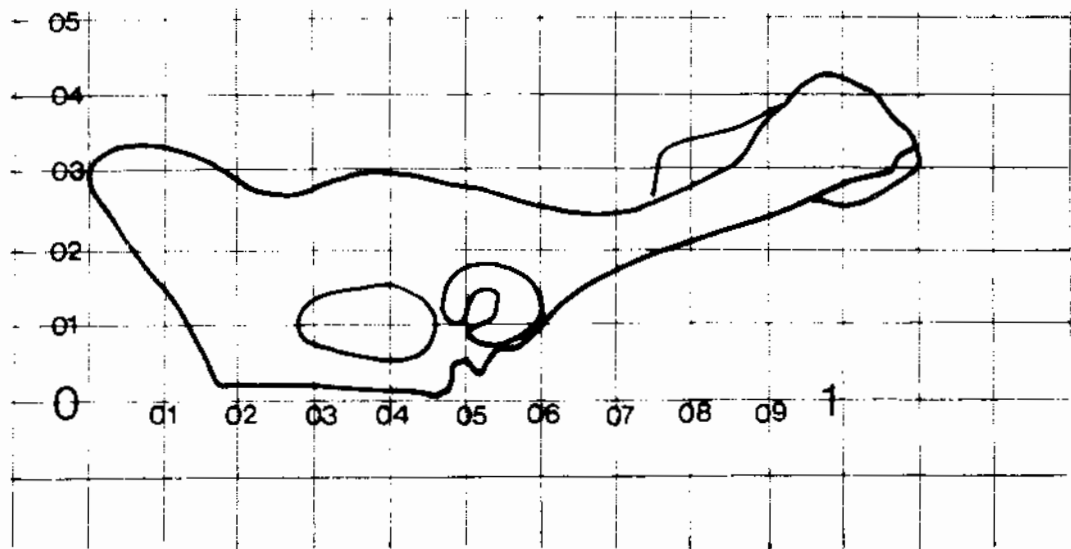
2

3

Ulna

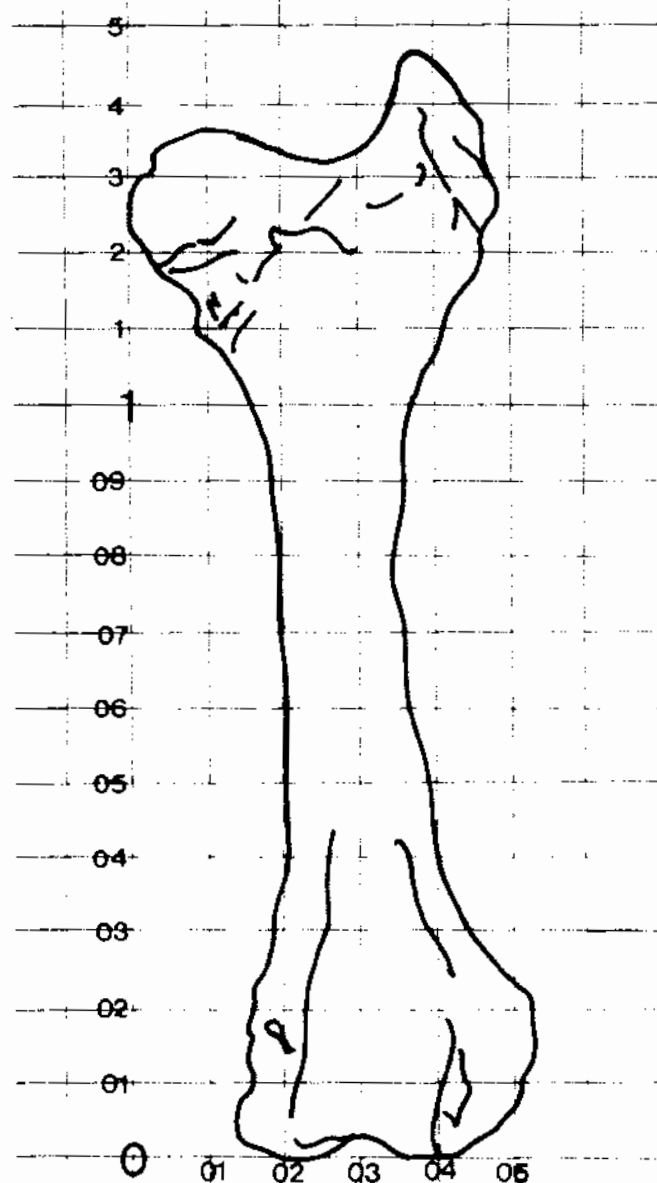
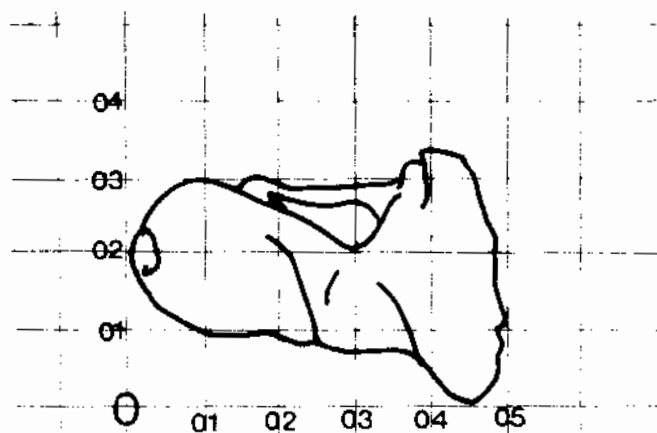


Os Coxae



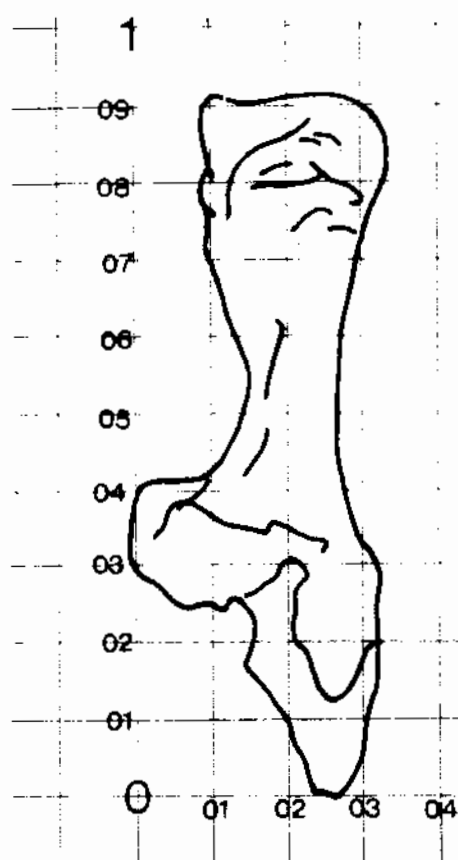
view B

Femur

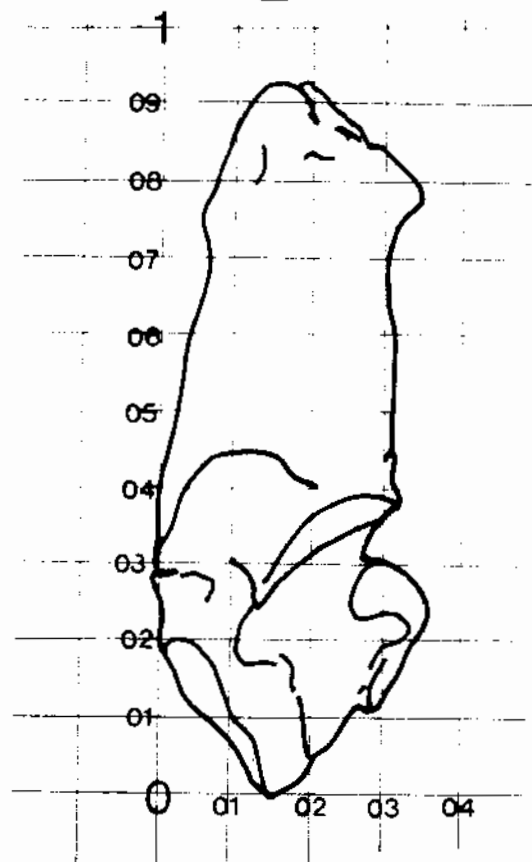


Calcaneum

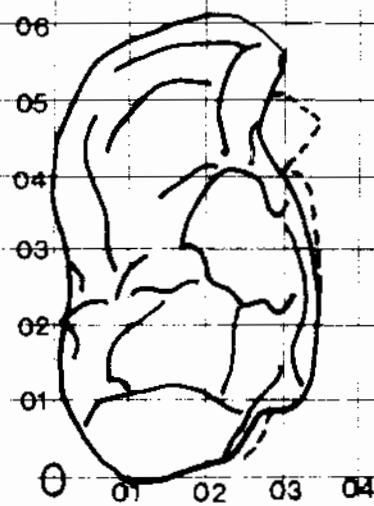
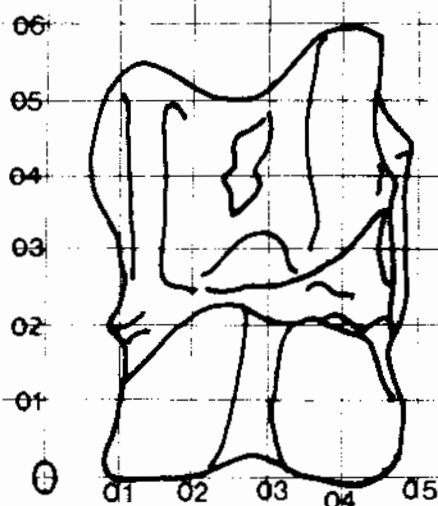
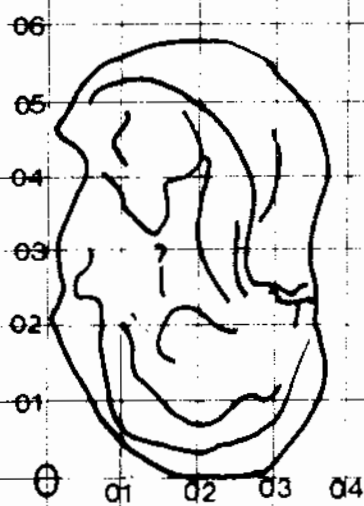
1



2



Astragalus



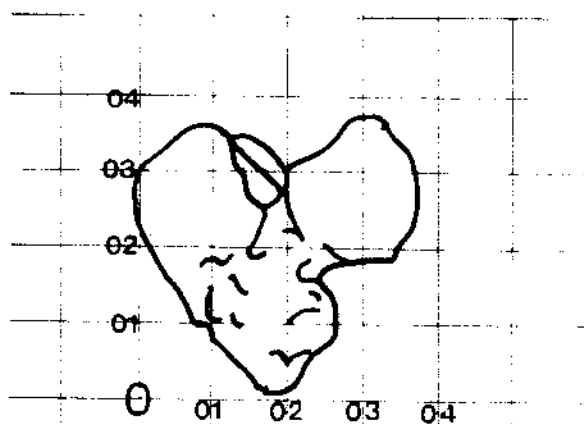
medial

dorsal

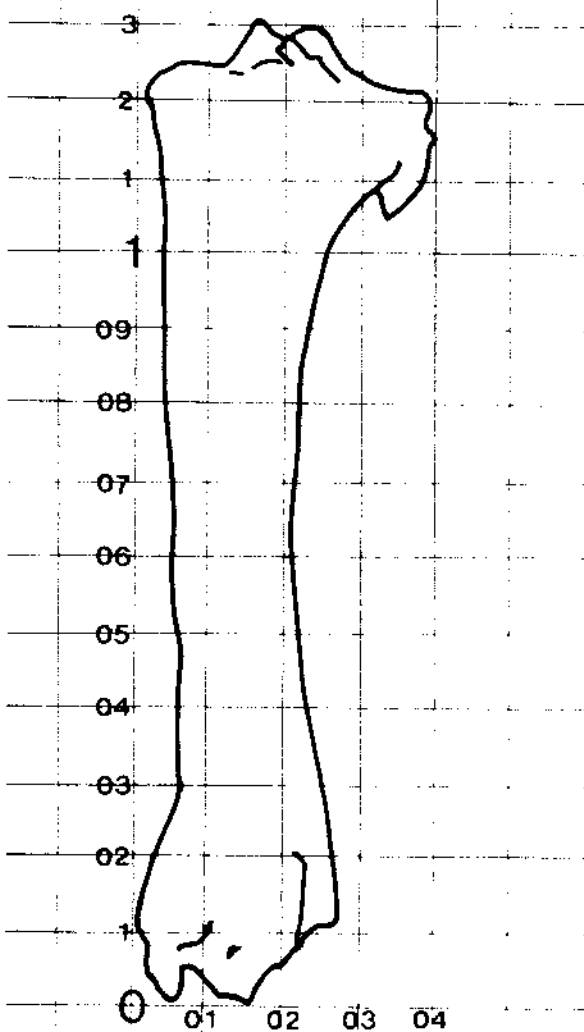
lateral

B

Tibia

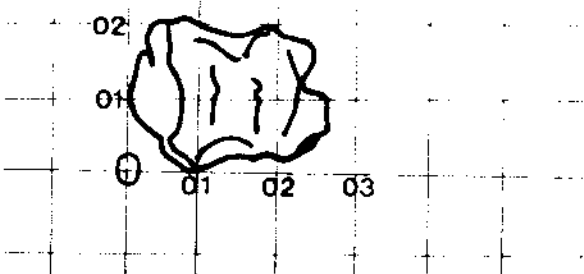


I
P



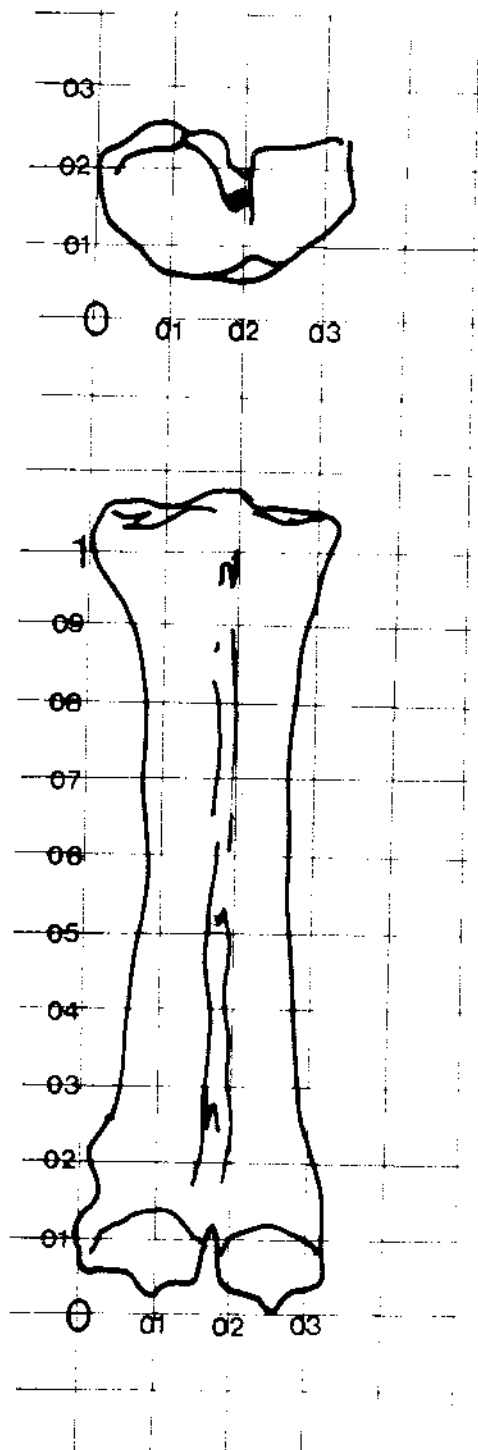
F.B.E.L.

2



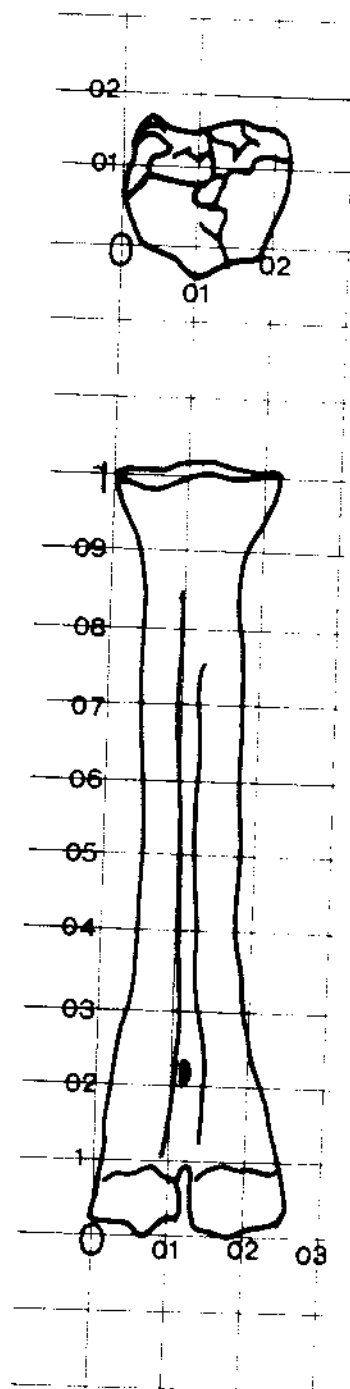
3
D

Metacarpal



Metatarsal

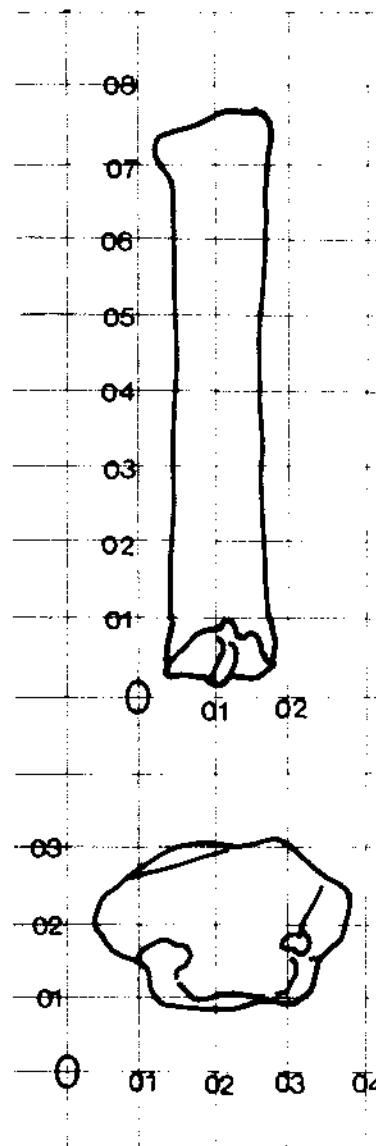
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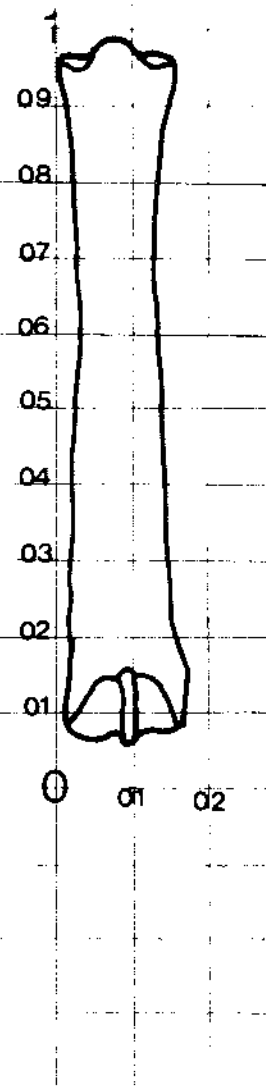
2

Horse

Metacarpus 111



Metatarsus 111



Phalanges

