

G	<u>ANIMALS, ZOOLOGY</u>	G
G2	(Common subdivisions) * As E2/E9.	G1/G7
G7	(Collections, exhibitions, museums)	
G7H	(Collecting, acquisition, preparation of specimens) * For capture of animals, <u>see GAI UC.</u>	
G7I	(Preparation)	
G7I K	Killing * For Killing in wild, <u>see GAI VX.</u>	
N	Setting	
G7J	(Preservation	
G7K	(Dry)	
G7K R	Casting of moulds	
T	Taxidermy	GAW
V	Skeletons	
G8	(Collections of living animals) Zoos	G85
G8M B	(Care & breeding of captive animals)	
G8M D	Grooming	
E	(Nutrition, feeding)	
Q	(Housing)	
S	(Special equipment & facilities) * For example, bedding.	
T	(Special environments)	
	Exercise areas, paddocks	
	(For aquatic animals)	
	* For qualification of aquatic animals only.	
U	Ponds	
V	Aquaria	
W	Tanks	
V	(For terrestrial animals)	
W	Cages	
	Nest boxes	
G8N	(Health & medical care)	
	Veterinary medicine	
	* <u>Alternative</u> (not recommended) to locating with Animal husbandry.	
	* If the option above is not taken, the following schedule is available for qualification in Class G.	
	Add to G8N letters N/X following H in HN/HX.	
G92	(History of zoology)	
G93 CC	Pre-classical zoology	
CQY	Classical zoology	
CR	Greek classical zoology	
CV	Roman classical zoology	
GAA	(Principles, schools of thought, relations to other subjects)	G8
GAC	(Research)	
GAI	(Field investigation)	GBJ
GAI 5	(Equipment)	GBK

	(Animals)	
	(Field investigation)	
	((Equipment))	
GAI 5F	Hides	
5J	Binoculars, telescopes	
B	(Observation, watching)	
UB	(Collecting specimens)	
UC	Capture	
UD	Tracking	GGY
UD5 F	(Equipment)	
UD5 H	Radar	
UE	Radio	
UF	Stalking	
UG	Trapping	
UH	(Special aids)	
UI	Dredging (for insects)	
UJ	Decoys	
UJ	(Methods, A/Z)	
	* E.g. netting.	
UK	Immobilisation	
UL	Injection	
UM	Sedation	
UN	Anaesthetics	
UP	Physical methods	
UQ	Chemical methos	
UR	(Other)	
V	Marking	
VE	Ringing, banding	
VF	Ringing stations	
VG	Special methods	
VH	(Other methods, A/Z)	
	* E.g. dyeing, tagging.	
VJ	Radio tagging	
VL	Recovering marked specimens	
VN	Controlling, retrapping	
VX	Killing	
	* For collecting & preserving, <u>see</u> G7IK.	

GAK	(Experimental & practical zoology)	GB
GAV	(Operations on biological materials)	GBB
	(By biological material acted on)	
	(Embryos)	
	Amniocentesis	
GAV P	(Organs & products)	
	Add to GAV P letters A/Y following GI - e.g.	

PUL	Blood
PWS DJR	Faeces
PWW DJP	Urine

GAW	Laboratory animals
	* For collections of living animals in zoos, etc., <u>see</u> G8.
	Add to GAW letters A/P following G8 in G8A/G8P. A selection of prominent classes is given below, with some amendment.
GAW MX	Breeding
	* <u>See also</u> Animal husbandry GT.

(Animals)  
 (Experimental & practical zoology)  
 (Laboratory animals)  
 (Breeding)  
 (Health & medical care)

GAW N \* This includes actions taken on laboratory animals for purposes of investigation.

NLY Add to GAW letters N/X following H in HN/HX.  
 (Biopsy)

NVM (Drug administration)

OL (Surgery) Vivisection

OM (Anaesthesia)

OS (Organectomy)

PKT \* For surgery on specific parts, see part below (GAW T/GAW X).  
 (Autopsy)

XA (Reproductive system)

XB Breeding

XBL (Techniques)

XBN Artificial insemination

XD (Males)

XF (Females)

(Types of animals)

\* Any given type may be qualified as follows (where hyphen represents its classmark):

Add to - letters A/F following G8  
 Add to - FZ letters D/X following GAT  
 Add to - G letters D/P following GAU  
 Add to - letters H/X following GAW (see examples above)

(By state)

XN Decerebrated  
 XP Decapitated  
 XR (Other special states)

GAX B Invertebrates  
 C (Other than Arthropods)  
 D Arthropods other than insects  
 E Insects  
 G Vertebrates  
 H Fish  
 I Amphibians  
 J Reptiles  
 K Birds  
 M Mammals  
 N Cats  
 P Dogs  
 Q Guinea pigs, cavies  
 R Hamsters  
 S Mice  
 T Rats  
 V (Others, A/Z)

GEB (Physiology in general) GD

GEB J (By organism)

\* Alternative not recommended) for libraries wishing to cite organism after processes or structures. If this option is taken proceed as follows:  
 Add to GBC letters JC / RV following G in GJC/GRV.

(Animals)  
 (Physiology)  
 ((By organism))

GBD	(By part, organ or system)	GE
	* <u>Alternative</u> (not recommended) for libraries wishing to cite physiology before parts, organs or systems. If this option is taken proceed as follows: <u>Add</u> to GBD letters T/Y following GI e.g. resting potential in muscle cells GDF QRB C TUE.	
GBP	(Biochemistry)	GDC
GBW	(Metabolism & nutrition)	
	* For organs & processes serving intake of nutrients, see Digestive system GIW I.	
GBX N	(Energy metabolism)	GDH
P	(Basal metabolism)	
S	(Catabolism)	GDH
T	(Respiration)	
	* Metabolic aspects only. For external respiratory system, see GIW E.	
GBY B	(Anabolism)	GBX X Gas transfer
		GDH, GDI
Q	(Nutrition)	
	* Metabolic aspects only. For digestive system in the nutrition process, see GIW ID	
	* <u>Alternative</u> (not recommended) for libraries wishing to keep here also digestive system processes is to proceed as follows: <u>Add</u> to GBY Q letters D/J following GIW ID.	
S	Storage, reserve formations	
GCF	(Biochemistry of particular substances)	
GCH P	Minerals	
GCI	(Inorganic elements & compounds)	
GCI G	Water	
GCO	(Organic compounds)	
GCR O	Carbohydrates	
GCS B	Lipids	
GCS D	Fats	
GCS JG	Nucleotides	
GCS M	Nucleic acids	
GCT	Proteins	
GCU	Enzymes	
GCV	Vitamins	GDN
GCW	Hormones	GDP
GCY	Pigments	GEL
	GCL = Pineal gland	
	GCWLH = Melatonin	
	GCY LS = melanin, melanism	
	(Special physiological processes)	
GDD	(Interactions at level of atoms, molecules, ions)	GDB
GDD L	(By energy forms & interactions)	
	See also Taxis (behaviour) GHW R	
GDF B	(Thermal phenomena & interactions)	GDB
N	(Electrical phenomena & interactions)	GDB, GEY
GDH	(Optical phenomena & interactions)	

	( <u>Animals</u> )	
	(Special physiological processes)	
	((Optical phenomena & interactions))	
GDL	(Pathology)	GDW, GAT
GDN B	(Constituent materials of organisms)	
	* For substances at molecular level, <u>see</u> Biochemistry	
	GBP.	
GDO	( <u>Body fluids</u> )	GCW
	* For circulatory system, <u>see</u> GIU I.	
GDP	(Anatomy & morphology in general)	GAB
GE	(Cytology)	
GES	(Histology)	GC
	(Types of tissues)	
GES QT	(General)	
	* <u>As</u> EES WT/EES V.	
GET	Epithelium, epithelial tissue	GCE
	(Spatial properties)	
GET BH	Striations	
	(Biochemistry)	
CLK	Calcium	
CLK BV	Calcification	
CTP P	Albuminoids	
CTP W	Keratin	
CTP WBV	Keratinisation	
	(Special processes)	
	(Desquamation, scaling) <u>see</u> Coatings, coverings GEW G	
E	(Cells)	
EPw	(Cilia, flagella)	
ERN	Chromatophores	
ERP	Melanophores, melanocytes	
ERQ	Iridophores, iridocytes	
ERR	Xanthophores, lipophores	
	(Special to epithelium)	
ERT	Secretory	
ERU	Goblet	
	(Glands) <u>see</u> Glandular tissue GEW M	
ERW	Absorptive	
ERX	Langerhan's cells	
R	Layers	
RV	Outer, external, cortical tissue	
RW	Middle	
RX	Inner, internal	
S	Surface	
T	Microvilli	
TV	Brush borders	
V	Contact surfaces, intercellular junctions	
VW	Tight junctions	
VX	Intermediate junctions	
VY	Desmosomes	

## (Histology)

## (Epithelium)

## (Surface)

## (Desmosomes)

## (Types of epithelium)

\* Most types of tissue reflect certain combinations of the following arrays (e.g. mucous membrane is simple but with limited stratification, ciliated, contains goblet cells, etc.). It is recommended that combining such characteristics to obtain a classmark is not attempted.

	(By cell shape and height)	GCF
GEV B	Squamous, pavement cell	GCF
D	Cuboidal, cubical	
F	Columnar, palisade, cylindrical	GCH
	(By arrangement and layer)	
H	Simple	
J	Simple squamous	
K	Simple cuboidal	
L	Simple columnar	
M	Composite	
N	Stratified, laminated	GCF
O	Stratified squamous	
P	Stratified columnar	
Q	Transitional	GCF
R	Pseudo-stratified	
	(By possession of particular constituents)	
U	Keratinised	
V	Non-keratinised	
W	Pigmented	
	(Other chemically defined types)	
	<u>Add to GEV Y letters I/Y following HC.</u>	
GEV B	(By structural & other features)	
	<u>Add to GEV B letters D/Y following HD</u>	
	(By cytological features)	
GEW C	Ciliated	
D	Non-ciliated	
E	(Other)	
	<u>Add to GEW E letters D/R following HE.</u>	
	(By function)	
G	Coatings, coverings, teguments, integuments, investing tissues, epithelial tissue proper	GCI
	(Processes)	
G DJQ	Desquamation, scaling	
DJR	Exfoliation	
H	Linings, endothelial tissues	
J	Mesothelial tissue	
	<u>See also Serous membrane GEW S</u>	
L	Secretary epithelium	
M	Glandular epithelium	
	* For glands <u>see GIW AL.</u>	
N	Absorptive epithelium	
P	(Other functional epithelium)	
	* For example, resorptive epithelium.	
R	Basement membrane	

	(Animals)	
	(Epithelium)	
	(By function)	
	(Basement membrane)	
GEW S	Serous membrane	GC0
T	Mucous membrane	
	* For mucin <u>see</u> Body fluids GCT RT.	
GEX	Connective tissue, interstitial tissue	GCJ
GEX E	(Cells)	
	* For connective tissue cells special to a given part, organ or system, <u>see</u> part, etc. - e.g. macrophages, plasma cells.	
	(Special to connective tissue)	
ERS	Fibroblasts	
ERT	(L cells) <u>see</u> Cultured cells EER CT	
ERV	Mast cells, labrocytes	
ERW	Fat cells	
ERX	<u>See also</u> Adipose tissue GEY D. Free cells	
	(Associated tissue)	
R	Intercellular substance, matter. matrix, ground substance	
	<u>See also</u> Tissue fluid (extracellular fluids)	
	GES O.	
S	Collagen	
SR	Procollagen	
ST	Tropocollagen	
T	Reticular fibres, argentophil fibres, argyrophil fibres	
V	White, collagenous fibres	
W	Elastic fibres	
Y	(Elastin) <u>see</u> Proteins GCT PR Yellow elastic fibres	
	(Types of connective tissue)	
	* For connective tissue functioning as special organs or systems, <u>see</u> latter.	
GEY C	Loose connective tissues, areolar tissues, cellular tissues	
D	Adipose tissues	GCN
E	Brown fat	
G	Reticular tissue	GCL
J	Elastic tissue	GCQ
K	Areolar tissue	GCM
L	Fibrous tissue	
M	Mucoid tissue	GC0
N	Callus	
	(By part, organ, system)	
	* The preferred arrangements is to subordinate tissues defined by a part, etc. to the part.	
	* An <u>alternative</u> (not recommended) is given below for libraries wishing to keep all the histology together. If this option is taken, proceed as follows:	
	Add to GEY letters T/Y following GI in GIT/GIY e.g. Muscular tissue GEY TU.	
GFA T	Development, zoogenesis	
	* Ontogeny & phylogenesis of animals together.	

(Animals)  
(Development, zoogenesis)

GFB	<u>(DEVELOPMENT &amp; GROWTH)</u>	GDQ
	* Ontogeny of animals (development of individual organisms)	
GFB K	(Differentiation)	
P	(Life cycles)	
Q	(Diplohaplontic life cycle)	
V	(Diplontic life cycle)	
W	(Haplontic life cycle)	
GFC	(Forms of development)	
GFD	<u>(Growth)</u>	
GFD J	<u>(Restitution)</u>	
M	<u>(Regeneration)</u>	
Q	(Stages of growth)	
R	(Rest periods, dormancy)	
GFE	<u>(EMBRYOLOGY)</u>	EGB
GFE AJ	(Special theories)	
AK	(Experimental embryology)	EGB
BKV	(Communication)	
	(Biochemistry)	
CTM	Foetal globulins	
	(Processes & structures)	
	* The concept of development is central to embryology and its processes are enumerated below (in approximately evolutionary order) as the main facet. Structures associated with specific processes are collocated with the stage to which they relate - e.g. blastula with blastulation.	
	* Most of the vocabulary below is drawn from the embryology of vertebrates in general & mammals in particular. But many of the concepts & terms are applicable to all animal forms & the appropriate term should be extracted when classifying works on non-vertebrate animals.	
	(Processes involving all stages & structures)	
EF	(Cell division & growth)	
EGT	Cell death during development	
G	Differentiation	
H	Induction	
HR	Organizers, evocators	
HT	Metamorphosis, transformation	
	* For metamorphic forms see GJL G.	
	Polar behaviour, polarity	
	Gradients	

	(Animals)	
	(Embryology)	
GFE J	(Differentiation)	
	(Gradients)	
	Morphogenesis	
	* Only the most general processes are given here; formation of specific organs and parts see GFK.	
JR	Invagination	
JS	Evagination	
JT	Fusion	
JV	Detachment, separation	
JW	Aggregation, condensation	
JX	Migration	
JY	Involution	
KA	Retromorphosis	
K	(Self-sustaining function)	
	* This position allows qualification of a particular stage or structure by functions such as blood-supply.	
KWI	Add to GFE K letters T/Y following GI. (Nutrition) Embryotrophy	
L	(Structures involving all processes)	
	* For pre-zygotic structures, see Reproductive system GI X.	
	* Any given part may be qualified by A/L following GFE in GFE A/GFE L.	
LP	Pronuclei	
LQ	Zygote in embryology	
LR	Embryo	
LY	Appendicular organs of the embryo (general)	
	(Processes and accompanying structures, by stage)	
N	Cleavage, segmentation	
P	Metameric segmentation (By cleavage zones)	
Q	Determinate eggs	
QR	Polarisation	
R	Indeterminate	
S	Holoblastic cleavage, total cleavage	
T	Radial cleavage	
V	Spiral cleavage	
WR	Biradial cleavage, disymmetrical cleavage	
WS	Bilateral cleavage	
WT	Irregular cleavage	
GFF B	Meroblastic cleavage, partial cleavage	
BR	Discoidal cleavage	
	(By ability to form whole organ)	
C	Regulative cleavage	
D	Mosaic cleavage	
F	Blastulation, blastomere	EEE
G	Morula, stereoblastula	
H	Blastula, blastocyst, blastodermic vesicle, germinal vesicle, coeloblastula	
J	Trophoblast, trophoderm	
K	Blastoderm, inner cell mass	
KR	Primitive streak, embryonic axis	
L	Blastocoel	

	(Animals)	
	(Embryology)	
	(Blastulation)	
	(Blastocoel)	
	(Special to invertebrates)	
GFF LR	Amphiblastula	
LS	Periblastula	
LT	Discoblastula	
N	Implantation and placentation	
P	Delayed implantation	
Q	Gastrulation, gastrula	EEE
QJR	(Invagination)	
QJY	(Involution)	
QKB	Epiboly	
R	Archenteron, gastrocele	
S	Blastopore	
	* For Primitive streak, <u>see</u> GFF KR.	
(Trophoblast) see GFF J		
GFG	Membranes of the embryo (general)	
GFG N	Germ layers, embryological tissues	
O	Embryonal connective tissue	
P	Mesenchyme	EEM
Q	Mucous connective tissue	
R	Ectoderm, epiblast, outer layer	EEN
S	Neurulation	
T	Neural plate, medullary plate	
V	Neural folds	
W	Neural tubes	
GFH B	Sense organs, forms	
D	Optical	
E	Optic vesicle	
F	Placode	
G	Optic cup	
H	(Other)	
I	Integumentary organs	EEN
K	Mesoderm, mesoblast	EEM
L	Canalis neutentericus	
M	Notochord	EEM
N	Somites	
O	Intermediate zone	
	* Forerunner of urogenital system.	
P	Somatic layer, somatopleure	
Q	Myotome	
R	Splanchnic layer, splanchnopleure	
S	Coelom	
T	Endoderm, entoderm	EEL
U	Gastro-intestinal organs	
V	Cloaca	
W	Urogenital sinus	
GFI	Extraembryonic membranes, appendages of the embryo, EEF foetal membranes	
GFI DQV	(Villi)	
P	Placenta	
Q	Umbilical chord	
	(Arteries)	
	(Veins)	

	(Animals)	
	(Embryology)	
	(Extra embryonic membranes)	
	((Veins))	
GFI R	Amnion	
S	Amniotic cavity	
T	Amniotic fluid	
V	Amniotic sac	
GFJ B	Chorionallantoic membrane	
C	Chorion	
C D&V	(Villi)	
E	Allantois	
F	Allantoic stalk (for Urachus <u>see</u> Bladder, GFK WYL).	
G	Body stalk	
J	Yolk, yolk sac	
K	Vitelline membrane	
L	Vitelline duct	
M	Endometrium	
P	Decidua, Hunter's membrane	

GFK	Histogenesis and organogenesis	EEO
	* At post germ-layer stage; for early embryonic forms <u>see</u> germ layer GFG N.	
	* The preferred arrangement is to subordinate the embryology of a particular part, organ or system with the latter, in GIT/GIX.	
	* An <u>alternative</u> (not recommended) is given here for libraries wishing to keep together all embryology. If this option is taken, proceed as follows: <u>Add</u> to HFK letters T/Y following GI. A brief selection is given here to illustrate.	

GFK UH	(Heart) Foetal heart
UJS X	Ductus arteriosus
WF	(Pharyn.) Branchial region
WTL DVK D	Mesonephros, Wolffian body
WTL DVK F	Wolffian duct

WX	(Kidney) Pronephros
WYL	(Bladder) Urachus

GFL B	(Post-embryo development)	
J	Degeneration	
K	Ageing	
L	Longevity	GDS
N	(Stages)	
P	Infancy	
Q	Youth	
V	Adulthood, maturity	
W	Old age	
	Death	GDS

GFM T	(Variation, genetics, evolution)	
GFN	(Genetics)	
GGE	(Evolution)	GAU

GFM V

Directly

(Animals)  
((Evolution))

GGF

(Palaeontology) Palaeozoology

\* See notes at EGF & EGF MY regarding  
alternatives.

GGF M

(Information deduced)

\* Alternative (not recommended) to  
subordinating to specific part or type  
of animal. If this option is taken,  
proceed as follows:

Fossil animals

E Embryology as evidence

Add to GGJ letters J/R  
following G - e.g. fossil  
Articulata GGJ KVL.

GGJ

(Ecology)

Parasitism - see EHD + build of viruses DLP, so nematodes =  
(Behaviour) Animal behaviour, ethology

GG, GH

GEU

GKRK +  
organisms in  
from G or E

(Behaviour, ethology)

\* The term 'ethology' is now tending to be used  
more narrowly to signify the naturalistic study  
of whole patterns of behaviour. But the literary  
warrant for this does not seem sufficiently  
strong to justify distinguishing it from the  
general subject of animal behaviour.

\* For the structure & mechanisms of functional  
parts, organs & systems regarded as subsystems  
of the whole organism, see Parts, etc. G

See also Types of animals by behavioural GIT/GIY.  
characteristics GJP T.

GHT BB

(Physiological factors)

\* For neurophysiology, see GHU CI. + neurophysiology  
(Hormones)

FN

GH

GO BGW

GON

GOO

(Genetic factors)(Ecological factors) Ecophysiology

(Cycles, phenology) Biological rhythms

(Energy systems)

Energy budgets, time-energy budgets

\* Amounts of time spent on particular  
activities.

(Population factors) see GHG.

I

Psychology of animals

IA, GFT

\* For studies of animal behaviour considered  
narrowly in comparison with human behaviour,  
see IC.

Add to GHU letters CC/CES, CI/K following I in  
ICC/IK. A selection of the more prominent  
concepts is given below with some  
modification of notation.

GHU

Neurophysiology

Sensation &amp; perception

Readiness

Stimulus &amp; response

	(Animals)	
	(Behaviour)	
	(Stimulus & response)	
<u>GHU</u>	<u>CQF</u>	Filtering
CU		Unconditioned responses
CV		Conditioned responses
DB		Sensorimotor activity
DG		Intelligeme
DQ		Proprioceptive sensation
DQS		Orientation
DQV		Visceral
DR		* Hunger & thirst, etc.
DRS		Somesthetic sensation
DRV		Pain perception
DRY		Equilibrium sense
DS		Higher sensations
DSX		* For structures & physiological mechanisms, <u>see</u> GIV CIH/GIV G.
DSY		Visual perception
DTB		Monocular vision
DTG		Binocular vision
DTN		Spatial perception
DV		Pattern recognition
DXC		Stereoscopic vision
DXG		Auditory perception
DXL		Chemical sense
EB		Smell perception
EGL		Time perception
		Motor processes
		* For forms of movement, <u>see</u> GHW/GHX.
		Prehension, grasping, manipulation
<u>EH</u>		Motivation, drives
<u>EK</u>		Instincts
<u>EL</u>		Habits
<u>EM</u>		Laterality
<u>EN</u>		Voluntary actions
<u>ER</u>		Incentives
<u>F</u>		Affective psychology, emotions
<u>FK</u>		Cognitive behaviour
<u>FLQ</u>		Curiosity
<u>FTM</u>		Play
<u>FV</u>		Learning & memory
<u>FW</u>		Memory
<u>G</u>		Learning
<u>GDD</u>		Educability
<u>GM</u>		Conditioned learning
<u>GSN</u>		Experience
<u>GSV</u>		Imprinting
<u>K</u>		Personality
<u>KLK</u>		Individuality
<u>KLO</u>		<u>Altruism</u>
<u>M</u>		Psychopathology
<u>P</u>		(Concrete behaviour, behavioural forms & patterns)
		Modal action patterns
		* Behaviour generalized as a total system.

(Animals)  
(Behaviour)

### (Modal action patterns)

GHU	Q	<u>General activation patterns</u>
	Appetitive behaviour	
QS		Releasing stimuli, releasers
QT		Releasing mechanisms
R		Aversive behaviour
S		<u>See also</u> Conflict GHY IC.
T		Consummatory behaviour
		Displacement behaviour

### Adaptive behaviour (general)

GHV

## Social behaviour (general), sociobiology

- \* It is very difficult to distinguish clearly social activities from purely individual ones. So the general class is located here, ahead of the particular forms of behaviour, many of which are only partially social. The major subclass Communication, which is needed to qualify many of these particular forms, is given next. The more obviously specific social activities & interactions follow those activities which are only partly social (Classes GHV U/GHX T ) and which are related more closely to particular structural parts & organs of the animal.
  - \* To qualify classes in GHV retroactively, proceed as follows (where hyphen represents the classmark added to):
    - Add to - letters A/HT following G in GA/GHT.
    - Add to - I letters C/Y following GHU.
    - Add to - J letters J/Y following GHV.

GHV JM

### Multiplier effect

- \* Amplification of effects of evolutionary change when behaviour becomes part of social organization.

JS

### Social drift

- \* Random divergence in behaviour & mode of organization of societies.

K

## Cooperative behaviour

- \* When activity (e.g. grooming) may or may not involve another organism. This position is provided solely in order to allow qualification of classes GH /GH below. The general class for cooperation is GHY G.

L

## Communication

- \* The following order of concepts is consistent with that in KE, from which further details may be obtained.

LK

## Signals

- \* Signs serving specific functions go with the function - e.g. feeding, mating.

## (Animals)

(Social behaviour)  
(Signals)

GHV LKN Economy in signals  
 LKP Specificity in signals  
 LKQ Antithesis principle  
 LKR Discrete signals  
 LKS Graded signals  
 M Displays  
 N Ritual

O Visual communication  
 OL Colour  
 ON Flashing  
 OQ Staring  
 OT Tactile  
 OV Body movements  
 OX Dancing  
 (Movement, dilatation, etc. of specific parts)  
 \* For example, feather ruffling.

P ~~PR~~ ~~Bird song~~  
 Q Vocal and aural *PN* Sonification, sound production  
 Chemical, olfactory, smell Po Ultrasonic communication  
 QL Pheromones  
 QN Excretory markers

## (By message)

QX Metacommunication  
 R Warnings signals, alarms  
 RS Distress signals

U Comfort activities  
 V Grooming, preening  
 \* An eclectic set of behaviours in which ritual elements & conciliatory signalling are often prominent.

VJK (Cooperation) Allogrooming  
 VL Cleaning  
 VLP Scratching  
 VLQ Bathing  
 VLR Dirt bathing, dust bathing  
 VLT (Other forms, A/Z)  
 VLV Basking, wallowing, loafing  
 VM (Special to species)  
 \* E.g. roosting of birds.

W Body activities  
 X Posture  
 XL Standing, lying down  
 Y Sessile

GHW Movements GEP  
 \* To qualify classes in GHW retroactively, follow 'Add' instructions at GHW with the following addition:  
 Add to - K letters N/X following GHW.

N (Tropisms)  
 R (Taxis) electrolocation etc.

	(Animals)	
	(Behaviour)	
	(Body activities)	
	((Taxis))	
		* For pharotaxis, <u>see</u> Navigation GHX FVV.
GHW X	Kinesis	
		* Speed, etc. depends on strength of stimulus.
XP	Orthokinesis	
XR	Klinokinesis	
XT	Rapid energy	
GHX B	Locomotion behaviour	GES
		* To qualify classes in GHX retroactively, follow 'Add' instructions at GHV with the following additions:
		<u>Add</u> to - K letters N/X following GHW.
		<u>Add</u> to - L letters B/Y following GHX.
C	Flying	
CP	Aerodynamics	
CR	Modes of flight	
CX	Gliding	
D	Swimming	
DP	Diving	
DR	Floating	
E	Walking & running	
EP	Bipedal	
EQ	Quadripedal	
ER	Jumping, hopping, leaping	
ES	Climbing	GGY
ET	Creeping, crawling	
EV	Burrowing	GGY
EX	(Other forms, A/Z)	
F	Travel	
FP	Orientation	[FQ Non-visual orientation]
FR	Magnetic	
FS	Solar	
FT	Navigation	
FU	Dorsal-light reaction	
FV	Ventral-light reaction	
FW	Pharotaxis	
G	Migration	
GP	Homing	
GR	Regular migrations	
GS	Single migrations	
GV	Vertical migrations	
GW	Across-country migrations	
H	Exploration	
	* For appetative behaviour in general, <u>see</u> GHU Q.	
HR	Carrying	
I	Resting	
	(Cycles)	
IP	Sleeping	
IPJ X	(Posture)	
IQ	Mechanisms	
IR	Patterns of sleep	
IS	Dreaming	
IT	Waking	
J	Dormancy	
K	Winter sleep, hibernation	GDU

	(Animals) (Behaviour)
	(Winter sleep, hibernation) (Forms special to a species) * For example, hibernaculum
GHX KP	Summer dormancy, aestivation (Play) <u>see</u> Cognitive behaviour GHU FIM.
L	(Behaviour associated with regulatory or nervous system)
M	(Behaviour associated with respiratory system)
N	Feeding behaviour, food-related behaviour
NP	Locating food
NR	Recognizing, selecting
NS	Collecting, gathering, <del>foraging</del>
O	Scavenging
OP	Begging
OQ	Opportunistic feeding
OS	Hoarding
OV	Stenophagous * With limited food range.
OW	Monophagous
OX	Euryphagous * Extensive food range.
OY	Omnivorous food habits
P	Vegetarian food habits, herbivorous food habits
PR	Xylophagous
Q	Carnivorous food habits, predation GGM * For parasitism <u>see</u> GHD.
R	Hunting
RJK	(Cooperation)
RN	Locating prey
RNP	Visually
RNR	Aurally
RNS	Olfactorily
RO	Capture of prey
ROP	Immobilization
ROR	Ambush
RP	(Special methods, A/Z)
RQ	Killing
S	Consuming, eating
SP	Liquid feeding
SQ	Filter feeding
SR	Regurgitation
SS	Rumination
ST	Gluttony
SU	Feeding frenzies (By type of food)
SW	Cannibalism
SZ	Coprophagy
T	Drinking
TS	Excretory behaviour

	(Animals)
	(Behaviour)
	(Excretory behaviour)
	Breeding behaviour, sexual behaviour
GHX II	
UJM P	(Displays) Communal displays
UN	Courtship
UO	Search for mate
UP	Selection of mate
US	Breeding success
UT	Breeding failure
UW	Non-breeding
UX	Multiple brood
V	Mating
VN	Monogamy
VP	Polygamy
VQ	Polygyny
VR	Polyandry
VW	Ethological isolating mechanisms
W	(Behaviour during pregnancy)
WN	Brooding
X	Birth, hatching
XO	Oviparous
XV	Viviparous, ovoviparous

GHY A

Care of young

\* To qualify classes in GHY,  
retroactively, follow 'Add'  
instructions at GHV with the  
following additions:

Add to - K letters L/Y following  
GHW.

Add to - L letters B/Y following  
GHX.

Add to - M letters A/V following  
GHY.

	(Cooperation)
AJK	Alloparental care
AP	Parental role
AQ	Father
AR	Mother
AS	Mother-child bond
AV	Recognition of young
B	Transport
BQ	(Special to species) * For example, Marsupial pouch.
BS	Suckling
BT	Weaning
BV	Warming
BW	Protection of young

C	(Behaviour of young)
	* See Young as a type of organism, GJL L
D	Social spacing
DP	Individual distance
DR	Total range
DS	Home range
DT	Core range
E	Territory, territorial behaviour
EP	Marking behaviour
ER	Establishing territory

(Animals)

(Behaviour)

(Establishing territory)

Rutting

GHY ET

F                   Shelter home-making activities  
 FP                 Construction activities  
 FQ                 Nests  
 FR                 Caves, dens  
 FS                 Burrows  
 FT                 (Special to a species)

(Special social behaviours)

\* These are taken from Class K (Human society)  
 with adjustments.

G                   Cooperation, communal behaviour  
See also note at GHY K.

GP                  Eusociality  
 \* Displaying cooperation in care of young,  
 division of labour in reproduction &  
 overlap of generations providing labour.

GR                 Recognition of neighbours  
 GT                 Greeting  
 GX                 Hierarchy (general)  
 \* For differentiation, see GHY Q.  
 HD                 Power relationships  
 HL                 Leadership  
 HN                 Social control  
 HQ                 Socialization

HS                 Cohesive processes  
 EV                 Divisive processes  
 IC                 Conflict  
 IN                 Competition  
 J                   Agonistic behaviour  
 JP                 Aggression, hostile behaviour  
 JR                 Reaction to danger  
 JS                 Flight, retreat  
 JT                 Withdrawal into defensive posture  
 JV                 Appeasement, submission  
 L                   Protective devices, defensive behaviour      GGT  
 LP                 Recognition of attacker  
 LR                 Camouflage  
 LS                 Cryptic colouration  
 LV                 Freezing  
 M                   Mimicry                                           GGT  
 MP                 Batesian mimicry  
 MR                 Mullerian mimicry  
 MT                 Manatosis  
 N                   Fighting  
 NJL K             (Signals)  
 KT                 Belligerence signals  
 (Special modes)  
 NQ                 Electrical assault  
 NR                 Chemical assault      NS      Mobbing  
 NT                 (Other)  
 NV                 Reaction to injury

(Animals)  
 (Behaviour)  
 (Reaction to injury)

(Behaviour producing social structure)  
Social organization, social structure  
Permeability, openness

GML HYP =  
 Social needs

GHY P  
 PQ

Q Differentiation & stratification  
 QP Division of labour, polyethism  
 QR Compartmentalization  
     \* Degree to which subgroups are independent.  
 QS Status  
 R Role  
 S Castes  
 T Traditions  
     \* Specific forms of behaviour passed from one generation to another by learning.  
 V Invention, innovation

GIS

(PARTS, ORGANS, SYSTEMS) Organology

GE, GAD

- \* The preferred arrangement is to subordinate to a given part, organ or system all those aspects which have already appeared in the schedule on physiology & anatomy, cytology & histology, etc., as well as any regions of the body with which it is associated (e.g. Muscles - Head).
- \* Alternatives to this arrangement have been indicated under preceding classes (e.g. physiology) whereby part, organs & systems may be subordinated to the special aspect.
- \* Two separate schedules are provided:
  - (1) A general parts, etc. facet which may also be used to qualify vertebrate animals. This is based closely on the very detailed schedule for humans in Class H. Generally speaking, all the detail in H is available in this schedule also.
  - (2) A parts, etc. facet for non-vertebrate animals. This is consistent with the general schedule in its order & draws on it for more detail in some classes, where this seems desirable. See GKA.
- \* The classifier should always establish what specific type of animal is under consideration, if any, before applying this schedule.
- \* For an example of how the general schedule can be used to accommodate the specialized vocabulary of a particular type of animal see Class GP for Birds.
- \* Order & notation conform to that in HT/HX from which further details are available without alteration of notation.

AUXILIARY SCHEDULE G1

for division under a Part, Organ or System (GIT/GIY)

- \* This schedule applies to any Part, Organ or System treated independently of any particular type of animal, or belonging to any vertebrate animal (or other Chordate) in classes GMW/GRV.
- \* For division of a Part, Organ or System belonging to non-vertebrates see Auxiliary Schedule G2 (following GKA).
- \* The function of this schedule is to allow the full range of detail in Class H (Human biology) to be available for qualifying any Part, Organ or System, with minimum amendment of the notation in Auxiliary Schedule H3 (for the division of a Part, etc. in Class H).
- \* The order is completely consistent with the order in GA/GI with one exception. The classes GDN/GDY (Constituents, and General structures) is moved down so that it files after all Processes and immediately precedes specific structural subclasses. This makes a more helpful arrangement when qualifying a specific part, etc.
- \* When a special provision has been made in HT/HY for qualifying a part, etc. this is used in preference to the synthetic provision; e.g. Nervous system (GIUR) of Muscles (GIT U) is GIT UR (not GIT UQU R).

Add to the classmark of the part, etc. (represented below by a hyphen) as follows:

- A Principles, general physiology  
Add to - letters A/DK following G in GA/GDK.
- DL Pathology
  - \* Detailed division of this is unlikely to be required.  
But if it is, proceed as follows:  
Add to - DL letters DY/O in Schedule H3 of Class H, with its further divisions as instructed.
- E Cytology & histology, development & genetics, evolution, ecology & behaviour  
Add to - letters E/H following G in GE/GH.
- N (Constituent materials)  
Add to - N letters N/O following GD in GDN/GDO.  
(General structure)
- Q (Elements derived from other parts, organs, systems)  
Add to - N letters P/W following GD in GDP/GDW.  
Add to - Q letters T/Y following GI in GIT/GIY,  
e.g. muscles of the mouth GIW JQT U.

## (Animals)

(Parts, organs, systems: general & vertebrate)  
 (\*Order....notation)

- \* Any given part may be qualified by all preceding facets (& by other Parts, organs or systems). See Special Auxiliary Schedule G1 on the opposite page.
- \* For non-vertebrates, see modified schedule following GKA.

GIT F

## (Regions of the animal body)

- \* For shape & other morphological properties, see G DP/GDW.
- \* Notation is same as HTF/RTH & further details may be taken from there.

GB	Head & trunk	GAG
GC	Head	
GH	Face	
GHT	Cheek	
	(Mouth) <u>see</u> Feeding organs, GIW J	
	(Jaw) <u>see</u> Feeding organs GIW JX	
GI	Neck	
GK	Trunk	
GO	Chest, thorax, pectoral region	
GR	Diaphragm	
GS	Abdomen	
GV	Pelvis	
GW	Saccral region	
HD	Extremities	HA Tail
HE	Limbs	
HF	Upper limbs, forelimbs, wings	
HG	Arm	
HK	Hand	
HL	Digits	
	* Including digits of lower limbs.	
HN	Lower limbs, hind limbs	
HO	Leg	
HQ	Knee	
HR	Foot & ankle	
HT	Foot	
HW	Digits	

HY (Functional organs & systems)

## Systematic anatomy (general)

JLocomotor system, musculo-skeletal system  
(Special processes)

JDJ N  
 JDJ R

Work  
Locomotion

\* As function of the system. For specific forms of locomotion behaviour, see GHX B

(Parts, organs, systems: general & vertebrate)  
 (Locomotor system)  
 (Locomotion)

GIT K	Cartilage	GCR
KX	Skeleton, endoskeleton * For exoskeleton, <u>see GIT YX.</u>	
L	Bones (Special elements) * Layers, cavities, Haversian system, etc.	GCT
LTC	(Types of bones) (Bones by region)	
MB	Axial skeleton	
MD	Skull	
ML	Spinal column, notochord	
NB	Appendicular skeleton	
O	Joints, articulations	
R	Ligaments	
U	Muscles	GIT VDJ O = Contractility GER
X	Tendons	
YX	Exoskeleton & integument	
GIU A	Integumentary system	
AT	Nails, claws	
B	Hair, fur, feathers	GEW
BS	Scales	
BV	Plates	
C	Skin	GEW
CR	Epidermis, cuticle	GEW
CW	Glands	
D	Sweat glands	
E	(By region)	
G	<u>Cardio-vascular system</u>	
GBF	Haemodynamics, blood flow	
GDE C	Pressure	
H	Heart	GEC
HDI N	Heartbeat	
HQT U	(Muscles)	
HR	Pericardium	
HS	Endocardium	
HT	Myocardium	
HU	Ventricles	
HW	Atria	
HX	Valves	
I	Blood vessels, circulatory system	GEA
J	Arteries	GEA
	(By region)	
JSU	Pulmonary artery	
JSY	Systematic arterial system	
JT	Aorta	
K	Capillaries	
	Veins	GEA
L	Blood	
LBP	(Biochemistry)	GEB
LCT	Blood proteins, serum	
LCT U	Haemoglobins	
LDI	Haemopoiesis	
LE	(Cytology)	
	* For blood cells, <u>see GIU LP.</u>	

	(Animals)	
	(Parts, organs, systems: general & vertebrate)	
	(Cardio-vascular system)	
	(Cytology)	
GIU	LOY B	Bleeding, haemorrhage
LOY C		Coagulation, clotting
LP		Blood cells, corpuscles
M		Erythrocytes, red cells
MX		Blood platelets, thrombocytes
N		Leukocytes, white cells
NR		Granulocytes
NV		Lymphocytes
OF		Monocytes
ON		Blood groups
P		Lymphatic system
PT		Glands
PU		Lymph
		GED
Q		Reticulo-endothelial system
QR		Phagocytes
QS		Microphages
QT		Macrophages
QU		Histiocytes
QV		Spleen
QW		Thymus gland
R		Nervous system
S		Nerves
S BK		Transmission, neural transmission
S BLD		Stimulus & response
S DFQ		Potential, membrane potential
S DFS		Conduction, neural conduction
(Cells & tissues)		
S S		Neurones, <del>neuroglial</del>
S W		Nerve-endings
	(Types of fibres)	
TH		Dendrites
TI		Axons
TN		Synapses
UB		Ganglia
US		Afferent nerves, sensory nerves
UT		Efferent nerves
UV		Motor nerves
USR7		Mechanoreceptors
V		Peripheral nervous system
WTG		Nerve roots
VU		Cranial nerves
VY		Spinal nerves
WE		Autonomic nervous system
WES L		Preganglionic fibres
WES M		Post-ganglionic fibres
WP		Parasympathetic nervous system
WPU		Cranial nerves
WPX		Vagus
WS		Sympathetic nervous system
X		Central nervous system
		GFJ
		GFF

## (Animals)

(Parts, organs, systems: general & vertebrate)  
(Central nervous system)

GIU XPB	Cerebrospinal fluid
XR	Meninges
XER	Dura mater
XEV	Arachnoid
XSE	Ependyma
XSG	Fissures
XUP	(Nerves, nerve tracts)
XV	(Neural pathways) < GIU XTL Interneurons
XW	White matter
XWR	Myelin
	Grey matter

Y

	Brain	GFE
	(Circulatory system)	
YQU I	Cerebrovascular system	
YX	Forebrain, prosencephalon	GFE
GIV AB	Cerebrum	GFE
AN	Diencephalon	
AT	Brain stem	
AV	Midbrain, mesencephalon	GFE
BB	Pons	
BD	Hindbrain, rhombocephalon	GFE
BE	Metencephalon	
BF	Cerebellum	GFE
BH	Myelencephalon, medullary brain	
BJ	Medulla oblongata	GFE
BK	Spinal cord	GFF
BKU B	(Ganglia)	
BKU P	Pyramidal tracts	
BKU Q	Extra-pyramidal tracts	

CB

	Sense organs & special senses	
	* For neural mechanisms of stimulus & response	GFM
	see GIU S.	
	* For psychology of sensation & perception,	
	see GHU	

## CC

CC	Lateral line system
	* Special to aquatic vertebrates

## CD

CD	Proprioception	GFN
	* For taxes, see Behaviour	

## CEA

Orientation sense, position sense

## CEC

Kinaesthesia, movement sense

\* For equilibrium, see Inner ear  
HVG KD

## CF

Interoceptive sense, visceral sense

## CFY

Somaesthesia, bodily senses

## CG

Cutaneous sense, exteroceptive sense

## CH

Touch, tactile sense

## CIB

Pain

## CID

Temperature sense

## CID USE

Thermoreceptors

## CIF

Pressure sense

## (Animals)

(Parts, organs, systems: general &amp; vertebrate)

(Sense organs)

(Pressure sense)

GIV CIH	Higher sensations	
CIL	Chemical senses - taste, smell	GFQ
CIN	Smell, olfactory sense	GFQ
CIP	Taste, gustatory sense	GFQ
CIS	Time, temporal perception	
CIV	Weight perception	
CIX	Perception of particular objects, A/Z	
CJ	Communication senses	
CL	Language	
D	Light perception, eye	
DDK	Vision, sight	GPS
DDM	Refraction	
DDN	Accommodation	
DDP	Visual perception	
DDS U	Colour	
DDS X	Monocular vision	
DDS Y	Binocular vision	
DDT B	Space perception	
DDT M	Depth perception	
DDT N	Stereoscopic vision	
DDT P	Movement perception	
(Parts of eye)		
DQT U	(Muscles)	
DQU S	(Nerves)	
DR	Eyelids	
DRW	Tarsal glands	
DRX	Nictitating membrane	
DU	Eyeball	
DUT	Sclera	
DW	Conjunctiva	
DX	Cornea	
DY	Uvea	
EC	Iris	
ED	Pupil	
EE	Retina	
EJ	Optic nerve	
EK	Humours, ocular fluids	
EL	Chambers of the eye	
EN	Lens	
F	Hearing organs, ear	GFR
FDK	Hearing (process)	
FDP	Auditory perception	
FS	External ear	
GA	Middle ear	
GH	Inner ear, labyrinth	
GK	Vestibular apparatus	
GKD J	Equilibrium, balance sense	
GIW AL	Glandular system, secretary system	
B	Endocrine system	
		GIW AP - exocrine glands GEK

## (Animals)

(Parts, organs, systems: general & vertebrate)  
(Glandular system)

(Endocrine system)

GIW BSHormones

\* As factor in the functioning gland which secretes them. For chemistry of hormones, see GCW and ECW.

BW	Pineal body, epophysis cerebri
C	Pituitary gland
DA	Thyroid gland
DC	Thymus gland
DD	Adrenal gland
DG	Chromaffin system

EEDKRespiratory systemGEERespiration, breathing

\* External & internal respiration together.  
For internal respiration, see Metabolism  
GBX T.

ER	Upper respiratory tract
ES	Nose
ESD X	Olfaction, smell sense
F	Pharynx
FR	Branchial arches
FRS	Gills
G	Larynx
GV	Voice
GVT	Lower respiratory tract
GX	Trachea
H	Lungs
HT	Bronchi
HV	Pleurae

IDigestive system, nutrition processGDJ

\* Nutrition process broadly & the parts & organs by which it is effected. For nutrition at molecular level see Metabolism GEW.

IBD	Digestion (process)	GDK
IS	Alimentary tract, digestive tract	
J	Mouth, feeding organ	
JW	Lips	
JWX	Cheek	JT - Salivary glands
JWY	Chin	
JX	Jaw, beak, bill	
K	Dental system	
MD	Periodontium	
MG	Gums, gingivae	
MH	Teeth	
O	Tongue	
OW	Palate	
OX	Salt gland	
PB	Pharynx & oesophagus (together)	
PD	Oesophagus, gullet	
PDR	Crop, ingluvies, rumen	
PDT	Gizzard	
PF	Viscera in general	
PG	Peritoneum	
PK	Mesentery	
Q	Gastro intestinal system	
R	Stomach	

## (Animals)

(Parts, organs, systems: general &amp; vertebrate)

(Digestive system)

(Stomach)

Intestines

Small intestine

Large intestine

Anus

(Associated glands of digestive system)

Pancreas

Biliary tract

Liver

Gall, bile

Gall bladder

GIW S

TB

TG

TN

TNY

TP

TX

U

US

UW

V

W

WX

X

YL

YU

Urogenital system, genito-urinary system

Urinary system

Urinary tract

Kidneys

Bladder

Urethra

GEI

GIXReproductive system

GEM

\* The classes below constitute a selection of major concepts from the general schedule at EIX/EJA. For vertebrates, nearly all the literature refers only to sexual reproduction & most of the classes taken from EIX & EJA will be redundant.

\* Order & notation is generally parallel with HX/HY & further details may be obtained from there.

GIX Q

(Asexual reproduction)

GEN

GIY

(Sexual reproduction)

GEO

GIY DJ

(Sexual activity)

Add to GIY DJ letters K/W following GKA IYD J.

DL

(Pathology)

E

(Cytology)

F

(Gametes)

FDJ

(Gametogenesis)

FG

(Meiosis)

G

(Receptor, donor)

\* For sexually dimorphic animals (including all vertebrates) the female & male gametes are subordinated to female & male animals GJC/GJH.

J

(Release &amp; union)

L

(Fertilization)

LZ

(Zygotes)

MES

(Histology, development &amp; variation)

MH

(Ecology &amp; behaviour)

S

(Reproductive organs, genitalia)

Add to GIY letters S/X following HXA.

See also Male & female animals GJC/GJH.

T

(Gonads)

V

(Sex hormones)

VW

Male, androgens

VX

Female, oestrogens

Y

Sexuality

GJA

(Forms of sexual reproduction)

## (Animals)

(Parts, etc: general &amp; vertebrate)

(Reproductive system)

(Forms of sexual reproduction)

## (Types of animals)

\* Any given type of animal may be qualified by all preceding facets (GA/GJ) by normal retroactive synthesis.

\* The classes below constitute a selection of major classes from EJB/EJS with some modifications.

GJB C

## (Non-taxonomic categories)

\* Specific classes, orders, families, genera or species of animals should go with their taxon in G & not in a non-taxonomic class.

F

## (Fossil forms)

\* See note at EJ.

X

## (By sex)

\* Use for all sexually dimorphic animals (including all vertebrates).

GJC

## Males

\* Use GJC J for Reproductive system (not GJC IX) and GJC K for Sexual reproduction (not GJC IY)

GJC J

## (Reproductive system)

Add to GJC J letters A/Y following GIIX.

Add to GJC K letters A/K following GIY.

Add to GJC letters L/V following GIY.

KF

(Gametes) Spermatozoon \* For sexglands, see GJC T.

Spermatogenesis

Maturation of sperm

Mobility of sperm

Transport of sperm

Sperm head

Acrosome

Sperm tail

Spermatogonia

Spermatocytes

Spermatids

Spermatozoa

S

## (Reproductive organs)

T

## (Sex glands, gonads)

GEO

## (Products)

U

Semen

(Germ cells) see Gametes GJC KF.

(Other secretions in semen)

GJD

## (Other parts, etc.)

Add to GJD letters B/R following HXE

- e.g. penis GJD M; sexuality GJD Q.

GJE

## Females

GJE J

## (Reproductive system)

Add to GJE J letters A/Y following GIIX.

Add to GJE K letters A/K following GIY.

Add to GJE letters L/S following GIY.

GJE KF

## (Gametes) Ova

S

## (Reproductive organs)

X

Adnexa uteri

Y

Ovaries, sex glands

GEO

Add to GJE Y letters Q/X following HXG.

	(Types of animals)	
	(By sex)	
	(Females)	
GJE YX	(Ovaries, sex glands)	
GJF	Oviducts, Fallopian tube	
	Uterus	
GJF U	<u>Add</u> to GJF letters Q/Y following HXH.	
Z	External genitalia	
	Mammary glands	
	<u>Add</u> to GJF Z letters Q/W following HXL.	
GJJ	Pregnancy	
GJG Y	<u>Add</u> to GJG letters Q/X following HXJ	
	Foetus	
GJH	<u>Add</u> to GJG Y letters S/W following HXK.	
	Parturition	
GJH X	<u>Add</u> to GJH letters R/W following HXL.	
	Multiple pregnancy	
	<u>Add</u> to GJH X letters B/R following HXM	
XQ	Sexuality	GKU
GJI	(By application) See notes at EJJ.	
GJJ	(By topographical distribution) Faunas	GI
	<u>Add</u> to GJJ letters D/Z from Schedule 2 - e.g. Fauna of British Isles GJJ E.	
GJK B/D	(By physiological characteristics)	
	(By developmental characteristics)	
GJL E	Embryonic forms	D Eggs + young
G	Metamorphic forms	
H	Larval forms	
J	Chrysalis form, pupae	
L	Young animals	
M	Mature animals	
MP	Single-brood animals	
MQ	Two-brood animals	
MR	Repeatedly-breeding animals	
	(By ecological factors)	
GJN D	(Parasites)	GGN
DN	Temporary parasites	
DQ	Endoparasites	
DR	Ectoparasites, blood suckers	
JR	(Flying animals)	
K	(Aquatic animals)	GHL
L	(Marine animals)	GHR, GHN
LP	Benthos animals	LW, Intertidal animals
MF	Pelagic animals	GHR
OBS	Riparian animals, bank dwelling animals	GHM
OJ	Amphibious animals	GKO
OL	Land animals	GHU
OL JR	(Aerial)	
OL K	* With flying ability.	
	(Aquatic)	
	* With swimming ability.	
GJP T	(By behaviour)	
VY	Sessile animals	GGY

	(Types of animals)	
	(By behaviour)	
GJP XDR	(Sessile animals)	
XER	Running animals	
	Jumping animals	
E	(By structural characteristics)	GAS
	(Cytological & histological)	
GJR	(By part, organ, system characteristics)	GAN, GAO
	(By covering)	
GJR TYX	Armoured animals	GKM
UA	Pachydermous animals	GKK
UAT	Horned animals	GKN
WI	(By digestive system)	
X	(By nutritional form & diet)	
	* Retroactive synthesis with GIW V/GJA is suspended here to allow the insertion of the large array below. Normal synthesis is resumed at GJS below ( <u>q.v.</u> )	
	<u>Add to GJR X letters C/S following EIQ.</u>	
Y	Polyphages	
YL	Omnivores, pantophages	
YN	Oligophages	
YP	Monophages	
YR	Hoarders	
YS	(By non-biological materials)	
	Holophytic animals	
	* Utilize chlorophyll.	
YT	Sand-eaters, mud-eaters	
YU	Dust-eaters	
YW	Stone borers, litholytes	
GJS AD	(By biological materials)	
AL	Saprophages	
AM	Humiphages, humus-eaters	
AO	Coprophages, dung eaters	
AP	(Microorganisms)	
AR	Plankton eaters	
B	Fungus rearers	
BL	(Plants) Herbivores, phytophages	
BN	(Roots) Rhizophages	
BP	(Stem) Caulophages	
BR	(Leaf) Phyllophages	
BS	(Secretions) Sap-eaters, juice suckers, chymophages	
BT	(Flowers) Anthophilous animals	
BW	(Fruit) Carpophages	
BX	Wood borers, xylophages	
BY	Gallery borers	
C	(Other specific plants, A/Z)	
CL	(Animals) Carnivores, sarcophages, predators	GKV
	* For parasites, <u>see</u> Parasitism GHD.	
CN	(Carrion) Necrophages	
	(By part)	
	Hair eaters, feather eaters	

(Types of animals)  
(By diet)GJS CP  
D(Hair eaters, feather eaters)  
(Other)  
(By prey)Add to GJS D letters K/V following G  
- e.g. insectivores.P  
G

(By genito-urinary system)

\* Retroactive synthesis is resumed here after  
interruption at GJR X.Add to GJS F letters W/Y following GIY.Add to GJS G letters C/Y following EJ

- e.g. hermaphroditic animals GJS GN.

J

(Other special types)

R

(Taxonomic categories, taxa, Animalia)

\* The schedule below follows closely that in  
A Classification of living animals by Lord  
Rothschild 2nd ed. London, 1965.This is supplemented by a number of terms from  
other taxonomies which are necessary on the  
grounds of literary warrant. These have been  
inserted at those points to which they most  
closely correspond in terms of class containment;  
e.g. the branch or grade Radiata (GKG B )  
immediately precedes those phyla (Cnidaria, etc.)  
which exemplify it. But the strict policy of  
indenting to show hierarchy is modified in some  
of these cases since they do not always reflect  
exactly the same hierarchical structure as the  
basic (Rothschild) classification.

GJT

(Taxonomy)

GJU

(Fossil forms)

\* For the alternatives relating to Palaeozoology  
see notes at EGF/EGJ, EJU and GGF/GGJ.\* The preferred arrangement is to locate here  
general works on fossil animalia and to sub-  
ordinate to the particular type of animal works  
on the fossil forms of that type.

GKA

Invertebrata (general)

\* Not in Rothschild.

\* See next page for special Auxiliary Schedule G2  
for Parts, organs & systems of non-vertebrates.

AUXILIARY SCHEDULE G2

for division under a Part, Organ or System of Non-Vertebrate animals (GKA/GMV)

- \* The function of this schedule is to allow the full range of detail in GA/GI to be available for qualifying any part, organ or system of a non-vertebrate, together with certain other provisions.
- \* The order is completely consistent with the order in GA/GI with one exception. The classes GDN/GDY (Constituents, and General structures) is moved down so that it files after all Processes and immediately precedes specific structural subclasses. This makes a more helpful arrangement when qualifying a specific part, etc.

Add to the classmark of the part, etc. (represented below by a hyphen) as follows:

- A Principles, general physiology  
Add to - letters A/DK following G in GA/GDM.
- DL Pathology
  - \* Detailed division of this is unlikely to be required.  
But if it is, proceed as follows:  
Add to - DL letters D/Y/O in Schedule H3 of Class H, with its further divisions as instructed.
- E Cytology & histology, development & genetics, evolution, ecology & behaviour  
Add to - letters E/H following G in GE/GH.
- I (Constituent materials)  
Add to - I letters N/O following GD in GDN/GDO  
(General structure)  
Add to - I letters P/W following GD in GDP/GDW.
- J (Elements derived from other parts, organs, systems)  
Add to - J letters B/Y following GKA I in GKA IB/GKA IY
  - e.g. Arthropoda - Digestive system - Glands GLK IR JPE.
- K (By region)
  - \* This applies only to certain systems & some of these (e.g. muscles GKA IFJ) have a special provision which should be preferred to this synthetic provision.  
Add to - K letters M/V following GKA IB.  
Add to - L letters D/W following GKA IC.  
Add to - M letters A/X following GKA ID.

## (Animals)

## (Non-vertebrates)

## (Parts, organs, systems: non-vertebrate)

- \* See explanatory notes at GIS. This schedule is to be used for qualifying non-vertebrate animals only.
- \* The schedule for Parts, etc. in general biology & in vertebrates (GIT/GIX above) has a notation designed to correlate exactly with the detailed notation of HIT/HIY & to facilitate synthesis from the latter. This notational requirement does not apply to non-vertebrates & so the notation here is spread over the whole of GL as it is in the general Parts, etc. schedule at EI. The order of conceptual classes, however, is generally consistent with that in GIT/GIY for general & vertebrate zoology.
- \* Instructions for qualifying a given part, etc. are given in Auxiliary Schedule G2 (opposite).

GKA IB (Regions of the animal body)  
 \* Including some multi-functional organs - e.g.

IB M	Body
N	Idiosoma
P	Segments, segmentation (Membranes)
PS	Intersegmental membranes, conjunctiva
Q	Somites
S	Tube body
V	Cephalothorax
ICD	(Head) <ul style="list-style-type: none"> <li>* For antennae, <u>see</u> GKA INW.</li> </ul>
ICH	(Face) <ul style="list-style-type: none"> <li>Frons</li> <li>(Cheek)</li> <li>Genae</li> <li>(Mouth)               <ul style="list-style-type: none"> <li><u>See</u> Feeding organs GKA IRP.</li> </ul> </li> <li>(Jaw)               <ul style="list-style-type: none"> <li><u>See</u> Feeding organs GKA IRR.</li> </ul> </li> </ul>
ICH S	
ICI	Proboscis
ICT V	Introvert
	(Neck)
ICJ	Cervix
ICK	(Trunk)
ICO	Thorax
ICQ	Pectus <ul style="list-style-type: none"> <li>* For pleuron &amp; sternum, <u>see</u> Exoskeleton. GKA IES.</li> </ul>
ICS	Abdomen
ICT	Telson
	(Posterior)
ICW	Opisthosoma
IDA	(Extremities)
IDB	Stalk, peduncle <ul style="list-style-type: none"> <li>* Of sessile forms.</li> </ul>
IDC	Flaps <ul style="list-style-type: none"> <li>* E.g. in Annelida.</li> </ul>
IDD	Tentacles
IDDN	Ciliated tentacles
IDDP	Lophophore tentacles
IDDQ	Lophophore

W3      NON-VERTEBRATE

BC1

(Animals)

(Parts, organs, systems = non-vertebrate)

(Extremities)

(Lophophore)

GKA IDE	Suckers
GKA IDF	Legs
IDG	Forelegs
IDMX	Midlegs
IDN	Hindlegs
IDP	Tibiae
IDQ	Tarsi
IDT	(Feet)
	Podia
IDU	Tube feet
	(Parapodium) <u>see</u> GKA IFS
IDV	Claws
IDW	Wings
LDWN	Brachypterae
IDWP	Macropterae
IDWR	Forewings
IDX	Hindwings
IDZN	Halteres

(Functional organs & systems)

IDY      Systematic anatomy (general)

IE      Musculo-skeletal system, locomotor system  
(Special processes)

IED JR      Locomotion

\* As function of the system. For specific forms of locomotion behaviour, see GHX B.

IEN	Cartilage
IEP	Skeleton (general)
IEP N	(Materials)
P	Chitin
Q	Spongine
	(Types by composition)
S	Calcareous skeleton
T	Silicaceous skeleton
V	Horny skeleton
IEQ	Endoskeleton
IEQ N	Axostyle
P	Spicules
R	Apodema
T	Apophyses
IER	Exoskeleton & integument (together)
	(Integumentary system) <u>see</u> GKA IG.
IES	Exoskeleton
IES M	Carinae
N	Mantle, pallium
O	Collar
P	Pen
Q	Shell, theca, investment
R	Carapace
S	Plates, scales, lorica
T	Sclerites
V	Tergum
W	Sternum
X	Pleuron

NB NON-VERTEBRATE

BC1

(Animals)	
(Parts, organs systems: non-vertebrate)	
(Skeleton)	
(Pleuron)	
(Cuticle) <u>see</u> GKA IGQ	
(Appendages & special elements)	
GKA IEV	Vestiture
	<u>See also</u> Integumentary system GKA IG.
IEW	Setae, bristles
IEW N	Chaetae
P	Chaetotaxy
Q	Macrotrichia
	(Cilia) <u>see</u> GKA IFR
S	Microtrichia
IEX	Cirri, tendrils
IEX O	Operculum
Q	Lacunar system
S	Velum
IFB	Articulations, joints
IFC	Hinge joints
IFD	Sutures
IFE	(By region)
	<u>Add</u> to IFE letters M/V following GKA IB.
	<u>Add</u> to IFF letters D/W following GKA IC.
	<u>Add</u> to IFG letters A/X following GKA ID.
IFH	Ligaments
IFH N	Conchiolin
IFH P	Hinge ligaments
IFJ	Muscles
	(Cells)
IFJ ERT	Contractile cells
	(Tissue)
EYB	Contractile fibres
IFK	(Regional)
	<u>Add</u> to GKA IFK letters M/V following GKA IB.
	<u>Add</u> to GKA IFL letters D/W following GKA IC.
	<u>Add</u> to GKA IFM letters A/X following GKA ID.
IFN	Tendons, aponeuroses, fasciae
IFP	(Locomotory elements)
	(Flagella) <u>see</u> Protista ESD.
IFR	Cilia
	(Tissue)
	Ciliary epithelium
IFS	Parapodium
IFT	Cement organ
IFV	Tube feet, ambulacria
IFW	Pleopodia
IFX	Pedipalpus
IG	Integumentary system
IGM	Coloration, pigmentation
IGM N	Changes in colour
P	Patterns
R	Colours
IGN	Wax secretion
IGN Q	Waxes
IGP	Epidermis, hypodermis
IGQ	Cuticle, skin, pellicle
IGR	Endocuticle

	(Animals)
	(Parts, organs, systems: non-vertebrate)
	(Integumentary system)
	(Edocuticle)
GKA IGR N	Cuticulin
IGS	Exocuticle
IGT	(Regional)
	<u>Add</u> to GKA IGT letters M/V following GKA IB.
	<u>Add</u> to GKA IGS letters D/W following GKA IC.
	<u>Add</u> to GKA IGT letters A/X following GKA ID.
IGX	Gastrovascular system * Serving both circulatory & digestive functions.
IH	Circulatory system, transport of materials
IHD DF	Diffusion
IHD DN	Haemodynamics
IHD ELX	Turgor
IHE RT	(Cytology) Amoebocytes
IHM	(Structural elements)
IHN	Vascular systems (general)
IHN DJN	Pulsatile organ, heart, aortic arches
DJQ	Heartbeat
DJR	Diastole
DJS	Diastasis
	Systole
IHO	Accessory heart
IHO Y	Lacunae, cavities (general)
IHP	Pericardium, pericardial cavity * For perivisceral cavity, <u>see</u> Coelom GKA ITE.
IHP O	Ostia
Q	Haemocoel
S	Sinuses
IHQ	Channels, blood vessels
IHR	Ventral vessels, efferent channels, arteries
IHR T	Aorta (Regional)
	<u>Add</u> to GKA IHS letters M/V following GKA IB.
	<u>Add</u> to GKA IHT letters D/W following GKA IC.
	<u>Add</u> to GKA IHU letters A/X following GKA ID.
IHV	Dorsal vessels, afferent channels, veins (Regional)
	<u>Add</u> to GKA IHV letters M/V following GKA IB.
	<u>Add</u> to GKA IHX letters D/W following GKA IC.
	<u>Add</u> to GKA IHY letters A/X following GKA ID.
IIA	Segmentals
IIB	Open circulatory systems
IIC	Closed circulatory systems
IID	Transported fluids * For body fluid in general, <u>see</u> GDO.
IIE	Blood
IIE CY	(Pigments)
CYR A	Achroglobin
CYR C	Chlorocruorin
CYR E	Echinochrome
CYR H	Haemerythrin
CYR J	Haemocyanin
ERT	(Cells) Haemocytes

## (Animals)

(Parts, organs, systems: non-vertebrate)

(Circulatory system)

(Haemocytes)

GKA IIG ERU Coagulocytes, cystocytes

IIG Lymph

IIH Haemolymph

(Reticulo-endothelial system) See Vertebrates

IIX (Regulatory, coordinating system) .

IJ Nervous system

\* In the case of some of the higher non-vertebrates at least, the complexity of vocabulary & conceptual relations in the field of neural transmission justifies using the detailed schedule in HUR/HVG for those concepts which apply.

IJ FB (Development)

IK FDH Cephalization

IK Nerves

Add to GKA IK letters B/W following HUS.Add to IL letters A/W following HUT.Add to IM letters B/V following HUU, with the modifications indicated below.

IKB K Transmission, neural transmission

IKB LDS Stimulus

IK BLE Response

IK DFQ Potential

IKS Neurones, nerve-cells

ILH Dendrites

ILI Axons

ILN Synapses

IMB Ganglia

IMO Networks, nerve net

IMP Nerve ring

INB Peripheral nervous system

IND Autonomic nervous system, stomatogastric nervous system

INE Sympathetic nervous system

ING Brain, suprakoelenteric ganglia

INH Ventral nerve cord

INJ Lateral nerve cord

INL Longitudinal nerve cord

INM Frontal ganglia

INO Optic lobe

INP Protocerebrum

INR Tritocerebrum

INV Sense organs &amp; special senses

INW Antennae

(Parts)

INW N Antennomeres

O Flagellum, clavola

P Pedicel

(Types)

R Clubbed antennae

S Geniculate antennae

T Pectinate antennae

V Dorsal antennae

NB NON-VERTEBRATE

BC1

(Animals)

(Parts, organs, systems: non-vertebrate)

(Nervous system)

(Sense organs)

(Dorsal antennae)

GKA INX

INX N

INY

Palpi

Labial palpi

Bristles, tactile hairs

(Particular senses)

Add to GKA IO letters B/K following HVC  
with the amendments indicated below.

IOD

Proprioception

IOE Q

Equilibrium

IOE S

Statocysts

IOI N

Olfaction

IOI O

Nuchal organ

IOJ

Communication

IOL

Sight, visual sense, eye

IOM

(Processes)

Add to GKA IOM letters D/V following  
HVD D.

(Parts)

ION

Add to GKA ION letters PW/Y following  
HVD.

Add to GKA IOP letters A/N following  
HVE.

(Types)

IOQ

Eye spots, auricles, stigma

IOR

Eye cups

IOS

Vesicular eyes

IOT

Ocelli, simple eyes

IOU

Compound eyes, faceted eyes

IOV

Ommatida

IOW

Stemmata

IPA

Hearing, vibration sense

IPB

Chordotonal organs, scolopophorus organs

IPB N

Tympanal organs

IPE

Chemical control system, secretory system,  
glandular system

IPF

Exocrine system

IPG

Endocrine system

(Neurosecretory system) see GKA IPK

IPH

Hormones, hormone production system

\* For hormones as chemical substances,  
see GCW.

(By seat of production)

IPI

Thoracic glands

IPJ

Prothoracic glands, ecdisial glands

IPJ N

Ecdysone, moulting hormones

IPK

Neurosecretory system

(Cells)

IPK ER

Neurosecretory cells

IPK N

Neurohumours, neurohormones

IPL

Corpora allatum gland

IPL N

Neotensin, juvenile hormone

IPM

Corpora cardiacum

WYS Non-VERTEBRATE

BC1

(Animals)

(Parts, organs, systems: non-vertebrate)

{Chemical control system}

{Corpora cardiacum}

GKA IPN

Ring glands

IPP

Tarsal glands

IPQ

Lacrimal glands

IPR

Peritracheal glands

(By function)

\* Generally speaking, hormones or secretions serving a specific purpose go with the purpose. But in many cases they serve more than one function & for that reason these are collected here.

IPU

Morphogenic hormones

IPV

Pheromones

IPV N

Attractants

P

Sex attractants

IPW B

Scent glands

E

Poison glands

G

Sting glands

H

Nematocysts

K

Spinning glands

L

Spinnerets

N

Sebaceous glands, sebific glands

P

Byssus glands

R

Honeydew

IQ

Respiratory system

IQD I

Respiration, breathing

\* External respiration (gaseous exchange) & internal respiration together. For internal respiration, see Metabolism GBX T. Add to GKA IQD I letters K/W following HWE D so far as applicable - e.g. Ventilation GKA IQD IM.

(Special processes)

IQD JB

Telescopic movement

JD

Water movement

JG

Air storage

JJ

Air bubbles

JL

Plastron

(Parts)

IQL

Breathing surfaces, gaseous exchange surfaces

IQM

Skin breathing, cutaneous respiration

IQN

Swallowing, intestinal respiration

IQP

Tracheae, tracheal system

IQP N

Air sacs

P

Spiracles

R

Tracheoles

IQQ

Gills, ctenidia, branchiae

IQQ N

Branchial arch

IQR P

Gill books, lamellate lungs, book lungs

IQR R

Tracheal gills

S

Spiracular gills

T

Blood gills

V

Internal gills

W

External gills

NB NON-VERTEBRATE

BC1

**(Animals)**

(Parts, organs, systems: non-vertebrates)  
(Respiratory system)

(External gills)

GKA IQS

IQS N

P

Q

Lungs

Lung books

Lamellate lungs

Aquatic lungs

(Special structures)

IQT

IQU

Swim bladders

Siphons, gas ventricles, funnels

(Special systems)

IQV

IQW

IQX

Apneustic respiration

Polypneustic respiration

Oligopneustic respiration

IS

Digestive system, nutrition process

\* Nutrition process broadly & the parts &  
organs by which it is effected. For  
nutrition at molecular level, see  
Metabolism GBW.

ISD D

Digestion

(Special processes)

ISD I

Digestion outside mouth or body

JC

Intracellular digestion

JE

Choanocytes

JF

Cytopharynx

JG

Cytostome

K

Channel system

KL

Cilia, ciliated tentacles

KO

Ostia

KS

Ingestion

ISJ

(Parts from other organs, systems)

Digestive glands (general)

Accessory glands

ISN

Alimentary tract, gut, coelenteron

ISP

Mouth, feeding organs

(Processes)

ISP DJN

Mastication

JPE

(Glands)

JPS

Salivary glands

JPT

Saliva

P

(Appendages)

Symbionts

Q

Aristolle's lantern

S

Proboscis

ISQ

Lips

ISQ N

Labrum

P

Labium

ISR

Jaw

ISR N

Maxilla

P

Mandible

ISS

Teeth

IST

Tongue

ISU

Lingua

ISW

Hypopharynx

## (Animals)

(Parts, organs, systems: non-vertebrate)

(Digestive system)

(Alimentary tract)

(Hypopharynx)

GKA ISX

ITB

ITB P

ITB R

ITC

ITD

ITE

ITF

ITG

ITG N

ITH

ITH N

P

ITJ

ITJ JPE

P

R

ITK

ITL

ITM

Cibarium

Pharynx, gullet

Pharyngeal pump

Crop

Oesophagus, foregut, stomodaeum

Diverticula

Coelom, perivisceral cavity, haemocoel

Coelomoduct

Gizzard, proventriculus

Mastax

Mesenteron, midgut

Gastric caeca

Peritrophic membrane

Stomach, ventriculus

(Glands)

Gastric glands

Pouches

Chylific stomach

Hindgut, proctodaeum

(Excretion) see Excretory system GKA IV

Cloaca

Anus

## (Associated glands &amp; structures in digestion)

ITP

Hepatopancreas

ITR

Liver

ITS

Mycetoma

ITS N

Mycetocytes

IU

Secretion &amp; storage systems (together)

\* For secretion as chemical control see IPE.

IUN

Storage

IUT

Urogenital system (general)

IV

Waste disposal system, excretory system

IVD J

Excretion

IVD JL

Filtration

IVD JN

Reabsorption

IVD JP

Secretion

IVD JR

Excretophores

IVN

Urinary system

IVP

Renal gland

IVR

Bladder

IVS

Blind tubules

IVT

Protonephridia

IVU

Flame-cell system

IVW

Mrophigian tubules

IVX

Intracytoplasmic canals

IWB

Metanephridia

IWD

Nephridia

IWD N

Nephrostome

P

Nephridiopore

IWF

Secondary excretory system

IWG

Nephrocytes

IWH

Osculum

**(Animals)**

(Parts, organs, systems: non-vertebrate)

(Urogenital system)

(Osculum)

- |         |                        |
|---------|------------------------|
| GKA IWJ | Antennary gland system |
| IWK     | Green glands           |
| IWL     | Coxal glands           |
| IWM     | Ventral glands         |

**IX** Reproductive system

**IXQ** Asexual reproduction

Add GKA IX letters Q/Y following EIX  
with the following adjustments:

(Special forms)

- |       |                                                       |
|-------|-------------------------------------------------------|
| IXT N | Strobilation, strobilisation                          |
| P     | Zoooids                                               |
| R     | Proglottides<br>(Heteronereis) see Development stages |
| IXU   | (Budding)                                             |
| IXU Q | Gemmules                                              |
| S     | Statoblasts                                           |

**IY** Sexual reproduction

Add to GKA IY letters D/X following EIY.

Add to GKA J letters C/X following EJA,  
with the following additions and  
amendments:

- |        |                                                               |
|--------|---------------------------------------------------------------|
| IYD J  | Sexual activity                                               |
| IYD JL | Detecting opposite sex                                        |
| JN     | Intercourse<br>* Including all associated<br>activities.      |
| JP     | Excitation, arousal behaviour,<br>preliminaries to copulation |
| JQ     | Signals                                                       |
| JQN    | Scent                                                         |
| JQP    | Coloration                                                    |
| JQS    | Vocal signals                                                 |
| JR     | Erotogenous zones                                             |
| JRN    | Cutaneous excrescences                                        |
|        | Copulation, coitus                                            |
| JV     | Fertilization                                                 |
| JW     | Fertility, fecundity                                          |
|        | (Special structures)                                          |
| IYW C  | Claspers                                                      |
| E      | Gonadophyses                                                  |
| G      | Pterygopodia                                                  |
| J      | Cerci                                                         |
| L      | Bursa copulatrix                                              |
| O      | Ovotestis                                                     |

(Types of non-vertebrates)

(By sex)

(Males)

Add to GKA J letters C/D following GJ  
with the following adjustments:

(Reproductive organs: other parts)

(Animals)

(Types of non-vertebrates)

(Males)

(Reproductive organs: other parts)

GKA JDB

Gonopore (males)

JDJ

Ejaculatory duct

JDM

Penis, aedeagus

JE

(Females)

Add to GKA J letters E/H following GJ with  
the following adjustments:

JEW V

Genital chamber

W

Accessory glands (general)

JEY

(Ovaries)

JEY T

Ovarioles

TW

Germarium

U

Vitellarium

YD

Ovipositor

YL

Receptaculum ovarum

JF

(Uterus)

JFQ WB

(Glands)

WDN

Nidamental glands

WDP

Shell glands

JFU

Gonopore (female)

JFY R

Receptaculum seminis, spermatheca

GKA U

(Protozoa)

\* Alternative (not recommended) to locating under  
Protista, at ESC. If this option is taken,  
proceed as follows (where the hyphen represents  
the classmark added to):

Add to GKA letters U/Y following ES.

Add to GKB letters A/Y following ET

Add to GKC letters A/B following EU.

GKC Y

Metazoa

\* Multicellular as compared with the largely  
unicellular Protozoa. This term is often used  
to exclude Porifera; for this narrower  
connotation, see Eumetazoa GKF Y. Not in  
Rothschild.

## (Animalia)

## (Metazoa)

GKC J Agnotozoa (sub-kingdom)  
 \* Not in Rothschild.

M	MESOZOA (phylum)	GMZ
O	See also Platyhelminthes GKK	
Q	Dicycmida (order), Rhombozoa	GMZ D
S	Orthonectida	GMZ O
	Rhopalura	

## W Parazoa (sub-kingdom)

GKD PORIFERA (phylum), Spongida, sponges  
 (Fossil forms) GLU

GKD JYC Archaeocyathidae

GKD L Nuda (sub phylum)

See also Ctenophora GKJ C.

M	Hexactinellida (class), glass sponges	GLW
N	Amphidiscophora (subclass)	
O	Amphidiscosa (order)	
P	Hyalonema	
Q	Hexasterophora	
R	Hexactinosa	
S	Farrea	
T	Lychniscosa	
V	Lyssacinosa	
W	Asconema	
X	Euplectella, Venus's flower basket	

GKE B Gelatinosa (sub-phylum) GLV

C Calcarea

D Calcinea

E Clathrinida

F Leucettida

G Calcaronea

H Leucosolenida

J Sycettida

K Scypha, Sycon

L Leuconia, Leucandra

M Pharetronida

N Demospongiae

O Tetractinomorpha

P Homosclerophorida

Q Plakina

R Choristida

S Stellella

T Geodia

V Chondrosia

W Lithistida

G Clavaxinellida

A Tethya

B Suberites

C Azinella

F Ceractinemorpha (subclass)

G Keratosa (order) Horny sponges

H Dendroceratida

J Dictyoceratida

K Spongia, Euspongia, bath sponges

L Verongia, Aplysina

GLY

GLY K

GKF A  
 B  
 C  
 D  
 E  
 F  
 G  
 H  
 J  
 K  
 L

(*Animalia*)  
 (Parazoa)  
 (Porifera)

GKF	N	(Verongia, Aplysina)
P		Haplosclerida
Q		Spongilla, Euspongilla
R		Poecilesclerida
S		Desmacidon
T		Halichondrida
		Halichondria
Y		Eumetazoa (sub-kingdom)
		* Not in Rothschild.

(By symmetry)

GKG B Radiata (branch or grade)  
 \* Radially symmetrical. Not in Rothschild.

D	CNIDARIA (phylum), COELENTERATA	GMA, GM
E	Hydrozoa (class), Hydromedusae, hydroids, medusae	GMB
JYC	(Fossil forms)	
F	Stromatoporoids	
G	Athecata (order), Gymnoblastea, Anthomedusae	
H	Hydra	
J	Tubularia	
K	Coryne	
L	Velella, By-the-wind-sailor	
M	Millepora	
N	Bougainvillia	
P	Stylaster	
Q	Eudendrium	
R	Porpita	
S	Thecata, Calyptoblastea, Leptomedusae	GMC L
T	Obelia	GMC L
V	Sertularia	
W	Plumularia	
GKH A	Campanularia	
B	Limnomedusae (order)	
C	Trachymedusae	GMD C
D	Geryonia, Cammarina	
E	Narcomedusae	GMD N
F	Aegina	
G	Siphonophora	GMF
H	Physalia, Portuguese man-of-war	
J	Agalma	
K	Actinulida	
L	Scyphozoa (class), Scyphomedusae, jelly fish	GMH
M	Stauromedusae	GMI
N	Lucernaria	
O	Cubomedusae	GMK
P	Carybdea	
Q	Chiropelatus	
R	Coronatae	GMJ
S	Periphylla	
T	Semaeostomae	GML S
V	Pelagia	
	Cyanca	

	(Animalia)	
GKH W	(Cnidaria)	
X	(Cyanca)	
GKI B	Aurelia, Aurellia	
GKI BJV E	Rhizostomae	GML F
BJV EL	Anthozoa (class), Actinozoa, corals	GMM
EN	(Fossil forms,	
EP	(Palaeozoic)	
EQ	Tabulata	
C	Favositidae, honeycomb corals	
D	Halysitidae, chain corals	
E	Syringoporidae	
F	Ceriantipatharia (sub-class)	
G	Antipatharia (order), black corals	GMP
G JYC	Ceriantharia	
H	Octocorallia, soft corals	
I	Alcyonacea	
J	(Fossil forms)	
K	Alcyonaria	
L	Alcyonium, dead men's fingers	GMP A
M	Gorgonacea	GMQ
N	Antilllogorgia, sea fans	
NJV E	Gorgonia	
NJV EM	Pennatulacca (order)	GMQ P
NJV AP	Pennatula, sea pen	
NJY D	Zoantharia (sub-class)	GMN
O	(Fossil forms)	
P	(Palaeozoic)	
Q	Rugosa, Tetracoralla	
R	Zaphrentidae	
S	(Mesozoic/Recent)	
T	Scleractinia, Hexacoralla	
U	Zoanthiniaria (order), zoanthids	GMP C
V	Corallimorpharia	
W	Actiniaria, sea anemones	GMN C
X	Sagartia	
	Ptychodactiaria	
	Scleractinia, true corals, stony corals	
	Fungia	
	Porites	
	Acropora, Madrepora	GMO
	Caryophyllia	
GKJ C	CTENOPHORA (phylum), sea gooseberries	GMR
D	Tentaculata (class)	GMS
E	Cydippida (order)	GMT
F	Lobata	GMU
G	Mnemiopsis, comb jelly	
H	Cestida, Cestoidea	GMV
J	Platyctenea, Ctenoplana	GMY
K	Coeloplana	
L	Nuda	
M	<u>See also</u> Porifera GKD.	
N	Beroida	GMW
	Beroe	GMW
Q	Bilateria (branch or grade)	
	* Bilaterally symmetrical. Not in Rothschild.	

## (Animalia)

## (Bilateria)

GKJ S

## Vermes

\* Obsolete term, usually covering worms of all kinds.  
Not in Rothschild.

*Parasitic & parasitic! See  
note of GHD*

## (By nature of coelomic development)

V

## Acoelomata (sub-grade)

\* Not in Rothschild.

GKK

## PLATYHELMINTHES (phylum) flat worms

GN

GKK L

## Turbellaria (class)

GNB

M

## Acoela (order)

See also Opisthobranchia GLA A.

N

## Convoluta

P

## Rhabdocoela (order)

GND

Q

## Catenula

R

## Dalyellia

S

## Microstomum

T

## Alloeoocoela

V

## Plagiostomum

W

## Monocelis

GKL A

## Tricladida

GNE

B

## Maricola (sub-order)

GNE M

C

## Paludicola

GNE P

D

## Planaria

E

## Dugesia, Euplanaria

F

## Terricola

GNE T

G

## Geoplana

H

## Rhynchodemus

J

## Bipalium

K

## Polycladida

GNE V

L

## Acotylea (sub-order)

M

## Planocera

N

## Leptoplana

P

## Cotylea

Q

## Eurylepta

R

## Pseudoceros

T

## Temnocephaloidea (class)

V

## Temnocephaloidea (order), Dactylifera, Dactyloda

GNG

W

## Temnocephala

GNH

GKM A

## Monogenea, Heterocotylea

C

## Monopisthocotylea (sub-class)

D

## Capsaloidea (order)

E

## Tristoma

F

## Udonelloidea

G

## Gyrodactyoidea

H

## Acanthocotyoidea

I

## Protogyrodactyoidea

K

## Polyopisthocotylea

L

## Chimaerocoloidea

M

## Diclidophoroidea

N

## Microcotyle

P

## Diclybothrioidea

Q

## Polystomatoidea

S

## Cestodaria

GNL

## (Animalia)

	(Platyhelminthes)	
	(Cestodaria)	
G K M T	Amphilinidea (order)	
V	Gyrocotylidea	
G K N A	Cestoda (class), tapeworms	GNK
C	Didesmida (subclass)	
D	Pseudophyllidea (order), Bothriocephaloidea	GNM D
E	Diphyllobothrium, Dibothriocephalus	
F	Tetraedsmida (subclass)	
G	Haplobothrioidea (order)	
H	Tetrarhynchoidea, Trypanorhyncha	GNM T GNM P
J	Diphyllidea	
K	Tetraphyllidea, Phyllobothricidea	
L	Lecanicephaloidea	GNM J
M	Tetrabothrioidae	
N	Proteocephaloidea	
P	Nippotaenoidea	
Q	Cyclophyllidea, Taenioidea	GNM G
R	Dipylidium	
S	Hymenolepis	
T	Taenia, Cysticercus	
V	Mesocestoides	
W	Dilepsis	
G K O	Trematoda, flukes	
G K O L	Aspidogastrea (subclass), Aspidocotylea, Aspidobothria	GNG
M	Aspidogaster	GNI
N	Digenea, Malacocotylea	GNI
P	Schistosoma, Bilharzia	
Q	Fasciola, Distoma, Distomum	
R	Dicrocoelium, liver flukes	
S	Clonorhynchus	
T	Paramphistomum	
V	Cyclocoelum	
G K P A	NEMERTINA (phylum), Rhynchocoela, ribbon worms, proboscis worms	GNF
B	Anopla (class)	
C	Palaeonemeriina (order), Mesonemertina	GNF C, GNF H
D	Cephalothrix	
E	Tubulanus	
F	Heteronemertina	
G	Cerebratulus	
H	Lineus, boot-lace worms	
I	Baseodiscus, Polia	
K	Enopla (class)	
L	Hoploneurmertina (order)	
M	Monostylifera (suborder)	
N	Amphiporus	
P	Ototyphlonemertis	
Q	Prostoma	
R	Polystylifera	
S	Pelagonemertes	
T	Bdellonemertina, Bdellomorpha	GNV L
V	Malacobdella	
X	Pseudocoelomata (subgrade)	
	* Not in Rothschild.	

## (Animalia)

## (Bilateria)

## (Pseudocoelomata (subgrade))

GKQ	ASCHELMINTHES (phylum)	
GKQ L	Rotifera (class), Rotatoria, wheel animalcules	GNV
M	Seisonidea (order)	GNV V
N	Edelloidea	GNV L
P	Monogononia	
Q	Ploima (suborder)	GNV P
R	Flosculariacea	
S	Trochospaera	
T	Collothesacea	GNV T
V	Gastrotricha	GNW
W	Macrodausyoidea	
X	Chaetonotoidea	
Y	Chaetonotus	
GKR A	Echinoderida, Kinorhyncha	
B	Priapulida	GOY
	See also Echiura G LF ; Sipuncula G LE V.	
C	Priapulus	
E	Nemathelminthes	
	* Nematomorpha & Nematoda together.	
F	Nematomorpha (class), Gordiacea, horse-hair worms	GNQ
G	Nectonematoidea (order)	
H	Gordioidea	
I	Gordius	
K	Nematoda, Nemata, round worms	<u>See GKR K FJ IRS GNO</u> <sup>out</sup>
L	Phasmidia (subclass)	<sup>new</sup>
M	Rhabditida (order)	
N	Rhabditina (suborder)	
O	Rhabditis	
Q	Strongylina (suborder)	
R	Necator, hookworms	
S	Filaroides	
T	Ascaridina	
V	Ascaris, large roundworm	GNQ
W	Enterobius, threadworm, pinworm	
GKS A	Tylenchida (order)	
B	Spirurida	
C	Dracunculus, guinea-worm	
D	Gnathostoma	
F	Aphasmidia (subclass)	
G	Chromadorida (order)	
H	Enoplida	
J	Enopliina (suborder)	
K	Dorylaimina	
L	Mermis	
M	Trichinella, Trichina	
N	Dicotophymatina	
GKT	ACANTHOCEPHALA (phylum), thorny-headed worms, hook-headed worms	GNR
GKT L	Archiacanthocephala	
M	Palaeacanthocephala	
N	Eoacanthocephala	
P	ENTOPROCTA, Endoprocta, Calyssozoa, Kamptozoa, Polyzoa endoprocta, Polyzoa entoprocta	GOE
Q	Loxosomatidae	
R	Pedicellinidae	
S	Urnatellidae	

	(Animalia)	
GKT V	(Entoprocta)	
	(Urnatellidae)	
	Coelomata (subgrade)	
	* Not in Rothschild.	
X	(By coelom formation)	
	Lophophorates	
	* Not in Rothschild.	
GKU	POLYZOA (phylum), Bryozoa, Polyzoa Ectoprocta,	GOC
	Ectoprocta	
GKU L	Phylactolaemata (class), Lophopoda	GOF
M	Cristatella	
N	Plumatella, Alcyonella	
P	Gymnolaemata, Stelmatopoda	GOG
Q	Cyclostomata (order), Stenolaemata, Stenostomata	GOG C
	See also Marsipobranchii GNM.	
R	Crisia	
S	Eurystromata	
T	Cheilosomata (order)	GOG H
U	Bugula	
V	Membranipora	
W	Ctenostomata (order)	GOG N
X	Alcyonidium	
GKV B	PHORONIDA (phylum)	
D	BRACHIOPODA (phylum), lampshells	GOH
E	Inarticulata (class)	
F	Atremata (order)	
G	Lingula	
G JYC	(Fossil forms)	
	Lingulella	
H	Neotremata	
I	Crania	
J	Discinisca	
L	Articulata (class)	GOJ
G JYC	(Fossil forms)	
L JYE	Orthidae	
L JYG	Strophomenidae	
L JYJ	Richthofenidae	
L JYL	Spiriferidae	
M	Pentameridae	
N	Protremata (in general) * Obsolete class	
P	Telotremata (in general) * Obsolete class	
Q	Thecidioidea (suborder)	
R	Rhynchonelloidea	GOJ R
S	Terebratuloidea	GOJ T
T	Terebratelloidea	
	Magellania	GOJ M
X	Schizocoelomates	
	* Not in Rothschild.	
GKW	MOLLUSCA (phylum), malacology	GS
GKW JU	(Fossil forms)	
L	Shells, conchology	GSA
M	Amphineura	GSB
	Polyplacophora (class), Loricata,	GSB B
	Placophora	GSB D

(Animalia)  
(Mollusca)

	(Polyplacophora)	
GKw O	Lepidopleurida (order)	GSC D
P	Chitonida	GSD T
Q	Cryptochiton	GSD N
R	Lepidochitona	GSD D
S	Ischnochiton	
GKX A	Aplacophora (class), Solenogastres	GSC
C	Neomeniomorpha (order)	GSC N
D	Neomenia	
E	Proneomenia	
G	Chaetodermomorpha	GSC T
H	Chaetoderma	GSC T
J	Monoplacophora	
K	Tryblidioidea	
M	Gastropoda	GSE
N	Prosobranchia (subclass), Streptoneura	GSF
P	Archaeogastropoda (order), Dictocardia, Aspidobranchia	GSG M
R	Acmaea, limpet	GSG S
S	Haliotis, earshell, ormer, abalone	GSG H
T	Patella, limpet	
V	Trochus, top-shell	GSG L
W	Fissurella	GSG F
GKY A	Mesogastropoda (order), Monotocardia, Pectinibranchia	GSG V
C	Strombus	GSH F
D	Cypraea, cowrie	
E	Charonia, Tritonia, trumpet-shell	
F	Cassis, helmet-shell	
G	Pterotrachea	
H	Bulimus, Bithynia	
J	Pomatias, Cyclostoma	
K	Atlanta	
M	Stenoglossa, Neogastropoda	GSH O
N	Buccinum, whelk	GSH U
P	Nassarius, Nassa	
Q	Turris, Pleurotoma	GSG J
R	Xancus, Turbinella	GSG N
U	Euthyneura (subclass)	GSI
GLA A	Opisthobranchia (subclass), sea slugs	GSJ
	* Partly synonymous with Euthyneura.	
C	Pleurocoela (order), Tectibranchia	
D	Acteon	GSJ F
E	Aphysia, sea-hare	GSJ D
F	Bulla	GSJ D
G	Pteropoda	GSJ L
H	Cavolina	
I	Spiratella, Limacina, sea-butterfly	
J	Clione	
L	Sacoglossa, Ascoglossa	GSJ R
M	Elysia	
N	Limapontia	
P	Acoela	
Q	Notaspidea (suborder)	
R	Eleurobranchus	GSJ H
S	Nudibranchia	GSJ T

	(Animalia)	
	(Mollusca)	
	(Opisthobranchia)	
	(Nudibranchia)	
GLA T	Armina, Pleurophyllidia	
V	Doris, sea-demon	
W	Acolidia, Eolis	
X	Polycera	
GLB A	Pulmonata (subclass)	
C	* Partly synonymous with Euthyneura.	GSK
D	Basommatophora (order)	GSK B
E	Lymnaea, Lymmaea, pond-snail	
F	Chilina	
H	Siphonaria, Trimusculus	
I	Stylommatophora	GSK S
J	Helix, land-snail	
K	Testacella, shell-bearing slug	
L	Limax	
M	Arion, land-slug	
N	Succinea	
S	Onchidium	
T	Scaphopoda (class), tusk shells, tooth-shells	GSL
V	Dentalium	GSL D
GLC B	Siphondentalium	GSL H
D	Bivalvia, Lamellibranchia, Pelecypoda	GSM
E	Protobranchia	GSN
F	Nucula, nut-shell	
H	Solemya	GSN S
J	Eutaxodonta, Prionodontata	GSN N
L	Arca, Noah's ark shell	
M	Anisomyaria (order)	
N	Anomia, saddle-oyster	GSO A
O	Mytilus, mussel	GSO C
P	Ostrea, oyster	GSO M
Q	Pecten, scallop	GSQ A
R	Pinna, fan-mussel	GSQ P
S	Pteria, Avicula	
V	Spondylas, thorny oyster	GSO Y, GSQ Q
GLD A	Schizodonta	GSQ U
	Heterodonta	GSQ E
	(Fossil forms)	GSQ K
A JYC	Crassatellidae	
A JYE	Rudistae	
C	Cardium, cockle	GSQ L
D	Mactra, clam	
E	Margaritifera, pearl-mussel	
F	Tellina	GSQ G
G	Unio, fresh-water mussel	GSQ F
H	Venus	GSQ J
K	Desmodonta	
	(Fossil forms)	
K JYC	Solenopsidae	
M	Mya, gaper	GSQ N
N	Pholademya	GSQ P
P	Teredo, ship-worm	GSQ T
R	Septibranchia	GSR
S	Cuspidaria	GSR K
T	Poromya, gaper	GSR D
GLE A	Cephalopoda (class), Siphonopoda	GSS
C	Tetrabranchia (order)	GSW

	( <i>Animalia</i> )	
	( <i>Mollussia</i> )	
	( <i>Cephalopoda</i> )	
GL	( <i>Tetrabranchia</i> )	
	( <i>Fossil forms</i> )	
GLE CJY C	<i>Nautiloidea</i>	
CJY E	<i>Ammonoidea</i>	GSZ
CJY G	<i>Goniatitidae</i>	
CJY H	<i>Ceratitidae</i>	
CJY N	<i>Ammonites</i>	
GLE D	<i>Nautilus, pearly nautilus</i>	
F	<i>Dibranchia (order)</i>	GSY
G	<i>Decapoda (suborder)</i>	GST
	<i>See also Eucarida (Crustacea) GMM F</i>	
	( <i>Fossil forms</i> )	GSU
G JYC	<i>Belemnoidea</i>	
H	<i>Loligo, squids</i>	GSU S
I	<i>Sepia, Eusepia, cuttle-fish</i>	GSU G
J	<i>Spirula</i>	GSU H
K	<i>Ommastrephes, Ommatostrephes</i>	
M	<i>Vampyromorpha (suborder)</i>	
O	<i>Octopoda</i>	GSV
P	<i>Octopus, Polypus</i>	GSV T
Q	<i>Argonauta, paper-nautilus</i>	GSV J
R	<i>Alloposus</i>	GSV R
S	<i>Amphitretas</i>	GSV F
T	<i>Tremoctopus</i>	
GLE V	<i>SIPUNCULA (phylum)</i>	
	<i>See also Priapulida GKR B.</i>	GOW
W	<i>Sipunculus</i>	
GLF	<i>ECHIURA (phylum)</i>	
	<i>See also Priapulida GKR B.</i>	GOW
GLF L	<i>Echiurida (order)</i>	
N	<i>Xenopneusta</i>	
P	<i>Heteromyota</i>	
GLG	<i>ANNELIDA (phylum), ANNULATA</i>	GON
	( <i>Microfossils</i> )	
GLG JYC	<i>Conodont*</i>	
	* Systematic status uncertain.	
GLG L	<i>Polychaeta (class)</i>	GOP
N	<i>Errantia (subclass)</i>	
P	<i>Amphinome</i>	
Q	<i>Aphrodite</i>	
R	<i>Phyllodoce</i>	GOP D
S	<i>Tomopteris</i>	
T	<i>Syllis</i>	
U	<i>Nereis</i>	GOP D
V	<i>Nephthys</i>	
W	<i>Glycera, Rhynchebolus</i>	
X	<i>Eunice</i>	
GLH B	<i>Sedetaria (subclass)</i>	GOO
D	<i>Chaetopterus</i>	
E	<i>Arenicola, lugworm</i>	
F	<i>Cirratulus</i>	GSV C
G	<i>Capitella</i>	
H	<i>Maldane</i>	

(*Animalia*)  
 (*Annelida*)

GLH H	( <i>Polychaeta</i> ) <i>(Maldane)</i>	
J	Terebella	GOP P
K	Sabella, Spirographis, peacock fan worm	
L	Sternapsis	
M	Amphictene	
N	Histriodella	GNY H
P	Myzostomaria (class)	GOR
Q	Myzostoma	
GLI A	Oligochaeta	GOQ
C	Tubifex	
D	Euchytraeus, white worm	
E	Lumbricus	GOQ L
F	<u>Eisenia, earth worm</u>	
G	Megascolides	
H	Nais	
I	Aeolosoma	
J	Glossoscolex	
L	Hirudinea, leech (class)	GOT
M	Acanthobellida (order)	
O	Rhynchobellida	GOT C
P	Glossiphonia	
Q	Piscicola	
R	Gnathobellida	GOT G
S	Hirudo, medical leech	
T	Erpobdella, Herpobdella	GOT H
V	Archannelida	
W	Saccocirrus	
X	Polygordius	

GLK	ARTHROPODA (phylum)	GP
(Fossil forms)		
GLK JYC	Trilobites	GPB
JYE	Agnostidae	
JYG	Eodiscidae	
JYJ	Calymenidea, Dudley bug	
GLK L	Onychophora (class)	GPA
M	Peripatus	
N	Opisthopatus	
P	Paropoda	GPW P
Q	Paropus	
R	Euryparopus	
V	Mandibulata (sub-phylum)	
	* Not in Rothschild.	
X	Myriapoda	
	* Not in Rothschild.	
GLL A	Diplopoda (class), millipedes	GPY
C	Pselaphognatha (subclass)	
D	Polyxenida (order), Schizocephala, Penicillata	
F	Chilognatha (subclass)	GPY
G	Pentazonia (super-order), Opisthandria	
H	Glomerida (order), Oniscomorpha	
I	Glomeris	GPY J
J	Glomeridesmida, Limacomorpha	
L	Helminthomorpha, Egnatha, Proterandria	
M	Chordeumida, Nematophora	
N	Polydesmida	

(Arthropoda)  
(Diplopoda)

GLL N	(Polydesmida)	
P	Juliformia	
Q	Julida (order)	
R	Spirobolida (order)	
S	Spirostreptida	
T	Cambalida	
V	Colobognatha (super-order)	
W	Polyzonium	
GLM	Chilopoda (class), centipedes	GPZ C
GLM L	Epimorpha (subclass)	
M	Geophilomorpha (order)	
N	Scolopendromorpha	
P	Scolopendra	GPZ G
Q	Anamorpha	
R	Lithobiomorpha	
S	Lithobiomorpharia (suborder)	
T	Craterostigmomorpharia	
V	Scutigeromorpha	GPZ J
W	Scutigera	
Y	Sympyla	GPW C
<u>GLN</u>	<u>Insecta (class), Hexapoda, entomology</u>	GQ
GLN L	Apterygota (subclass), Ametabola	GQA
M	Collembola (order), spring tail	GQC
N	Arthropleonata (suborder)	GQC N
P	Podura	
Q	Isotoma	
R	Sympyleona	
S	Sminthurus, lucerne flea	
T	Protura, Myrientomata	GQC P
GLO A	Diplura, APTERA	GQB H, GQA
B	Campodea	GQB P
D	Thysanura, bristle-tail	GQB
E	Machilis	GQB H
F	Lepisma, silver-fish	GQB C
H	Pterygota (subclass), Metabola	
J	Palaeoptera (division), Exopterygota, Hemimetabola	
	* When Exopterygota & Hemimetabola exclude Polyneoptera & Paraneoptera.	
K	Ephemeroptera (order), Plectoplera, mayfly	GQO
L	Ephemera	GQO
N	Odonata, Paraneuroptera	
P	Zygoptera (suborder), damsel fly	GQP T
Q	Agrion, Calopteryx	
R	Anisozygoptera (suborder)	GQP D
S	Anisoptera, true dragon fly	
T	Aeshna	GQP N
V	Libellula	
GLP	Neoptera (division)	
GLP L	Polyneoptera (section), Exopterygota, Hemimetabola	
	* When Exopterygota & Hemimetabola exclude Paraneoptera & Palaeoptera.	
M	Dictyophera (order)	

	( <i>Animalia</i> )	
	( <i>Insecta</i> )	
	( <i>Neoptera</i> )	
	( <i>Neoptera</i> )	
	( <i>Dictyophera</i> )	
GLP O	Blattodea (suborder), cockroach	GQD W
P	Blatta	GQD N
Q	Ectobius	
R	Blattella	
T	Mantodea, mantid	GQD T
U	Chaetessa	GQD U
W	Isoptera (order), termite, white ant	GQG
X	Mastotermes	
GLQ A	Zoraptera	GQG V
B	Zorotypus	GQG Z
C	Plecoptera, Pertaria, stone-fly	GQP
D	Perla	GQP B
E	Grylloblattodea, Notoptera	
G	Phasmida, Cheleutoptera	GQD P
H	Donusa, stick-insect	
I	Phyllium, leaf-insect	GQD R
K	Orthoptera, Saltatoria	GQD, GQD A
M	Ensifera (suborder), long horned grasshopper, cricket	
N	Tettigonia, Phasgomura, bush cricket	GQD F
O	Gryllotalpa, mole cricket	GQD M
P	Acheta, Gryllus, cricket	GQD M
Q	Stenopelmatus	GQD H
S	Caelifera, shorthorned grasshopper	
T	Locusta, locusts	GQD C
U	Chorthippus, grasshopper	
V	Tetrix, Acridium, grouse-locust	GQD C
GLR A	Embioptera (order), web-spinner	GQF
B	Embia	
D	Dermoptera (order)	GQE
E	Forficulina (suborder), earwigs	GQE F
F	Arixenina	GQE J
G	Hemimerina, Diploglossata	GQE M
H	Hemimerus	GQE N
K	Paraneoptera (section), Exopterygota, Hemimetabola * When Exopterygota & Hemimetabola exclude	
L	Polyneoptera & Palaeoptera	
M	Psocoptera (order), Copeognatha, Corrodentia, book lice	GQH
P	Psocus	GWH A
Q	Phthiraptera, lice	
R	Anoplura (suborder), Siphunculata, sucking lice	GQJ
S	Pediculus, human louse	
V	Haematopinus, hog louse	GQJ
W	Mallophaga, biting louse	GQI
GLS A	Rhynchophthirina	
B	Thysanoptera, Physopoda, thrips	GQK
D	Thrips	GQK
F	Hemiptera, Rhymchota	GQL
G	Homoptera (suborder)	GQL H
H	Magicicada, cicada	GQL K
J	Cercopis	GQL L
K	Psylla, jumping plant louse	GQL R
L	Aphis, greenfly, plant louse	GQL T
N	Phylloxera, vine pest	
Q	Coccus, scale insect	GQL W
R	Heteroptera	GQL B
GLT A	Cimex, bed bug	GQL G
	Oligoneoptera (section), Endopterygota, Holometabola	

	( <i>Animalia</i> )		
	( <i>Insecta</i> )		
GLT A	( <i>Oligoneoptera</i> )		
C	Neuroptera (order)	GQR	
E	Megaloptera (suborder)	GQR A	
G	Sialis, alder fly	GQR B	
H	Raphidia, snake fly	GQR F	
J	Corydalis, Dobson fly	GQR C	
L	Planipennia	GQR	
N	Chrysopa, green lace wing	GQR T	
P	Hemerobius, brown lace wing	GQR H	
Q	Myrmeleoaa, ant lion fly	GQR M	
R	Mantispa	GQR R	
S	Ascalaphus	GQR N	
T	Nemoptera	GQR P	
V	Coniopteryx		
GLU	Coleoptera (order), beetles	GQM	
GLU L	Adephaga (suborder)	GQM A	
N	Cicindela, tiger beetle	GQM B	
P	Carabus, ground beetle	GQM C	
Q	Dytiscus, water beetle	GQM D	
R	Gyrinus, whiligid	GQM G	
T	Archostemata		
V	Cupes		
GLV A	Polyphaga	GQM I	
C	Agriotes, wireworm (larva)		
D	Arachnomorpha		
E	Bruchus		
F	Coccinella, lady bird	GQM P	
G	Dermestes	GQM Q	
H	Hister	GQM M	
J	Hydrophilus, Hydrans		
K	Ips, Tonicus	GQM V	
L	Lampyris, firefly	GQM U	
M	Leptinotarsa, colorado beetle		
N	Lucanus, stag beetle	GQM Y	
O	Meloe, oil beetle	GQM S	
P	Paussus	GQM F	
Q	Ptinus	GQM T	
R	Scarabaeus, chaffers	GQM Z	
S	Silpha, carrion-beetle	GQM L	
T	Sphaerius		
V	Staphylinus	GQM J	
W	Tenebrio, mealworm (larva)		
GLW B	Strepsiptera, stylopids	GQN	
D	Stylops	GQN S	
F	Mecoptera, Panorpatae, scorpion fly	GQS	
H	Panorpa		
J	Trichoptera, Phoyganoidea, caddis fly	GQT	
L	Zeugloptera		
N	Micropteryx, Eriocephala		
GLX	Lepidoptera, butterflies & moths	GQU	
GLX L	Monotrysia (suborder)		
N	Eriocrania	GQU A	

## (Animalia)

## (Insecta)

## (Lepidoptera)

## (Eriocrania)

GLX P	Hepialus, ghost moth	GQU A
Q	Stigmella, Nepticula	GQU E
R	Incurvaria	
GLY	Ditrysia (suborder)	GLX S Geometridae
GLY L	Arctia	SB biston, poppytail moths
M	Bombyx, silk moth	GQU E
N	Castnia	GQU M
P	Cossus, goat moth	GQU Q
Q	Dacnaus, Anosia	GQU D
R	Galleria, wax moth	GQU C
S	Lycaena	GQU I
T	Lymantrio	GQU W
V	Noctua, Phalaena	GQU M
GMA A	Papilio, swallow tail	GQU L
C	Pieris, cabbage butterfly	GQU T
D	Plutella	GQU V
E	Psyche, bag-worm moth	GQU E
F	Ptychopoda	GQU J
J	Saturnia	GQU U
K	Satyrus	GQU U
M	Thaumetopoea	
N	Tinea, clothes moth	GQU E
P	Tortrix	GQU G
S	Yponomenta, Hyponomenta	GQU E
T	Zygoena	GQU J
GMB	Diptera (order), two-winged fly, true fly	GQV
GMB L	Nematocera (suborder), midges	GQV A
M	Anopheles, mosquito	GQV C
N	Cecidomidae	GQV E
	* Not in Rothschild.	
P	Chironomus, non-biting midge	GWV D
Q	Culex	GWV C
R	Mycetophila	
S	Psychoda	
T	Sciara, fungus-gnat	
V	Simulium, blackfly	
W	Stegomyia	
X	Tipula, daddy-long-legs	GQV B
GMC B	Brachycera	GQV I
C	Bombylius	GQV O
D	Empis	GQV N
E	Rhagio, leptis	
F	Stratiomys, Stratiomyia	GQV K
G	Tabanus, horse-fly	GQV L
K	Cyclorrhapha (suborder)	GQV P
L	Calliphora, blue bottle, blow fly	GQV U
M	Drosophila, small fruit fly	GQV S
N	Ephydria	
P	Gasterophilus, Gastrophilus	
Q	Glossina, tse-tse fly	
R	Hippobosca	
S	Hypoderma	GQV Z

(*Animalia*)  
 (*Insecta*)  
 (*Diptera*)

	( <i>Hypoderma</i> )	
GMD B	Musca, house fly	GQV U
D	Nycteribia	GQV Z
E	Oestrus	GQV Y
F	Phora, phoridæ, scuttle fly	
G	Psila	
K	Sarcophaga	
L	Scatophaga	
M	Stomoxys	
P	Tachina	
S	<u>Siphonaptera (order), Aphaniptera, suctoria, flea</u>	GQV W
T	Pulex	GQW
V	Ceratophyllus	GQW C

GME	Hymenoptera	GQY
GME L	Sympyta (suborder), Chalastogastra	GQY A
M	Cephus, stem saw fly	GQY D
N	Sirex, giant wood wasp	GQY E
P	Waldheimia	GOJ W
R	Apocrita, Clistogastra	GQY G
S	Andrena	GQY Z
T	Anthophora	GQY Z
V	Aphidius, Lysiphlebus	
W	<u>Apis, honey-bee</u>	GQY Y
GMF B	Bombus, bumble-bee	GQY W
C	Chalcis, chalcid fly	GQY L
D	Chrysis	GQY N
E	Cynips, Dryophanta	GQY J
F	Diplolepsis, Rhodites	GQY U
G	Eumenes	GQY U
H	Evania	
J	Formica, ant	GQY P
K	Habrobracon, bracon	
L	Ichneumon	GQY I
M	Megachile	GQY Z
N	Mutilia	GQY R
P	Platygaster	GQY M
Q	Sphex	GQY Q
R	Vespa, hornet	GQY V
S	Vespula, wasp	
T	Xylocopa	GQY Z

GMG	<u>Crustacea (class)</u>	GPC
GMG L	<u>Branchiopoda (subclass)</u>	GPD
M	Anostraca (order), fairy shrimp	GPE
N	Chirocephalus	GPE C
P	Branchipus	GPE K
Q	Artemia	GPE G
R	Notestracata	GPG
S	Triops, Apus	GPG C
T	Lepiduros	GPG L
V	Conchostraca, clam shrimp	GPH C
W	Cyzicus, Estheria	GPH D
X	Limnadia	GPH F
GMH B	Cladocera, water flea	GPH G
C	Sida	GPH L

(*Animalia*)  
 (*Crustacea*)  
 (*Branchiopoda*)

GMH C	( <i>Sida</i> )	
D	<i>Daphnia</i>	GPH P
E	<i>Leptodora</i>	GPH V
F	<i>Chydorus</i>	
G	<i>Bosmina</i>	
H	<i>Polyphemus</i>	GPH R
J	<i>Cephalocarda</i> (order)	
K	<i>Ostracoda</i> (subclass)	GPI
L	<i>Myodocopa</i>	
M	<i>Cypridina</i>	GPI C
N	<i>Cladocopa</i>	
P	<i>Polycope</i>	
Q	<i>Podocopa</i> (order)	
R	<i>Cypris</i>	GPI G
S	<i>Cythere</i>	GPI K
T	<i>Platycopa</i>	
GMJ A	<i>Copepoda</i> (subclass)	GPJ
B	<i>Calanoida</i> (order)	
C	<i>Calanus</i>	
D	<i>Centropages</i>	
E	<i>Monstrilloida</i>	
F	<i>Cyclopoida</i>	
G	<i>Cyclops</i>	GPJ C
H	<i>Harpacticoida</i>	
J	<i>Notodelphyoida</i>	
K	<i>Caligoida</i>	
L	<i>Caligus</i>	
M	<i>Lernaeocera, Lernaea</i>	GPJ N
N	<i>Lernaeopodoida</i>	
P	<i>Chondracanthus</i>	GPJ J
Q	<i>Choniosphaera</i>	
R	<i>Mystacocarida</i>	
S	<i>Derocheilocarida</i> (order)	
T	<i>Branchiura</i> (subclass)	
V	<i>Argulus</i>	GPK
GMJ A	<i>Cirripedia</i> (subclass)	
B	<i>Thoracica</i> (order), barnacle	GPL C
C	<i>Lepas, goose barnacle</i>	GPL F
D	<i>Balanus</i>	GPL G
E	<i>Coronula</i>	
F	<i>Pollicipes</i>	
G	<i>Acrothoracica</i>	GPL J
H	<i>Alcippe</i>	GPL L
J	<i>Rhizocephala</i>	GPL R
K	<i>Sacculina</i>	GPL S
L	<i>Peltogasterella</i>	GPL T
M	<i>Ascothoracica</i>	GPL U
N	<i>Laura</i>	GPL V
P	<i>Malacostraca</i>	GPM
Q	<i>Leptostraca</i> (super-order), <i>Phyllocarida</i>	GPM L
R	<i>Nebaliacea</i> (order)	GPM N
S	<i>Nebalia</i>	
T	<i>Syncarida</i>	GPM S
V	<i>Anaspidacea</i>	GPM T

(*Animalia*)  
 (*Crustacea*)

	( <i>Anaspidacea</i> )	
GMJ W	Anaspides	GPM U
GMK B	Bathynellacea (order)	GPM V
C	Bathynella	
D	Pancarida (super-order)	
E	Thermosbaenacea (order)	
G	Peracarida	GPN
H	Mycidacea, opossum-shrimp	GPN B
J	Lophogaster	GPN F
K	Mysis	GPN C
L	Cumacea	GPN K
M	Diastylis	GPN P
N	Cumella	GPN M
P	Tanaidacea	GPN T
Q	Apsendes	GPN U
R	Tanais	GPN T
S	Leptochelia	GPN V
T	Gnathiolea	
GML A	Isopoda	GPO
B	Ligia	GPO P
C	Armadillidium, wood louse	GPO D
D	Asellis	GPO F
E	Idotea	GPO I
F	Limnoria, gribble	
G	Bopyrus	
H	Cymothoa	
I	Entoniscus	
J	Sphaeroma	
K	Oniscus	
L	Trichoniscus	
N	Spelaeogriphacea	
P	Amphipoda	GPP
Q	Gammarus, shrimp	GPP G
R	Talitrus, sand hopper	GPP J
S	Caprella, ghost shrimp	
T	Hyperia	
U	Cyamus, whale louse	
V	Corophium	
W	Pontoporeia	
X	Orchestia	
Y	Chelura	
GMM C	Hoplocarida	GPM P
D	Stomatopoda, mantis shrimp	GPM P
E	Squilla	GMP Q
F	Eucarida (super-order)	GPQ
G	Euphausiacea (order), krill, whale feed	GPQ A
H	Euphausia	GPQ E
I	Meganyctiphanes	GPQ N
J	Thysanopoda	GPQ T
L	Decapoda	GPR
	See also Dibranchia GLE F.	M Land crabs
N	Natantia (suborder)	
P	Penaeus	GPS B
Q	Palaemon, Leander	GPS D
R	Hippolyte, prawn	

(*Animalia*)  
 (*Crustacea*)  
 (*Eucarida*)

BC1

GMM R	( <i>Hippolyte</i> , prawn)	
S	<i>Crangon</i> , <i>Crago</i> , shrimp	GPS E
T	<i>Caridina</i>	
V	<i>Reptantia</i> ( <i>suborder</i> )	
W	<i>Astacus</i> , <i>Potamobius</i>	GPS L
X	<i>Calappea</i>	
Y	<i>Cambarus</i> , freshwater crayfish	GPS N
GMN C	<i>Cancer</i> , edible crab	GPU C
D	<i>Dorippe</i>	
E	<i>Dromia</i>	
F	<i>Galathea</i> , plated lobster	GPI N
G	<i>Gecarcinus</i>	GPU G
H	<i>Grapsus</i>	GPU P
I	<i>Hippa</i> , <i>Remipes</i>	
J	<i>Homarus</i> , lobster	GPS P
K	<i>Lithodes</i> , stone-crab	GPT L
L	<i>Maia</i> , <i>maja</i>	
M	<i>Nephrops</i> , Norway lobster	GPS R
N	<i>Ocypode</i>	
O	<i>Pagurus</i> , <i>Eupagus</i> , hermit crabs	GPT C
P	<i>Palinurus</i> , langouste, crawfish	GPS I
Q	<i>Panuliris</i> , rock lobster	
R	<i>Pinnotheres</i>	
S	<i>Platypodia</i>	GSH G
T	<i>Porcellana</i>	
V	<i>Portunus</i> , <i>Neptunus</i>	
W	<i>Potamon</i> , <i>Telphusa</i>	
X	<i>Thalassina</i>	

GMO A Chelicerata (subphylum)  
 \* Not in Rothschild.  
 (Fossil forms)

GMO AJY C	Eurypteridae	
AJY E	<i>Pterygotus</i>	
B	Merostomata (class)	GRB
C	Xiphosura (order), Limulida, King crab	GRA
D	<i>Limulus</i>	
F	Arachnida (class)	GR
G	Scorpiones (order), scorpion	GRC
H	<i>Scorpio</i>	
I	<i>Buthus</i>	
K	Pseudoscorpiones, Chelonethi, Chernetes, false scorpion	GRP
L	Holopeltida, Thelyphonida, whip scorpion	
M	<i>Thelyphonus</i>	
N	Schizopeltida, Schizomida, Tartaridae	
P	Amblypygi, Phrynicida	
Q	Palpigradi, Microthelyphonida, micro-whip scorpion	GRO
R	Ricinulei, Podogonata	
S	Solifugae, Solpugida, false spider, sun spider, wind scorpion	GRQ
T	<i>Galeodes</i>	
V	<i>Solpuga</i>	
W	Opiliones, Phalangida, harvest spider, harvestmen	GRR
GMP A	Araneae, spider	GRF
B	<i>Agelenae</i>	GRH
C	<i>Araneus</i> , <i>Epeira</i>	GRK
D	<i>Avicularia</i> , tarantula	GRG
E	<i>Clubiona</i>	
F	<i>Dysdera</i>	
G	<i>Lycosa</i>	GRM

(*Animalia*)  
 (Arachnida)  
 (Araneae)

GMP G	( <i>Lycosa</i> )	
H	Oonops	
J	<i>Pholcus</i>	
K	<i>Salticus</i> , <i>Epiblemmum</i>	
L	<i>Theridion</i>	GRJ
M	<i>Thomisus</i>	GRL
N	<i>Uloborus</i>	GRI
Q	<i>Acari</i> (order)	GRT
R	<i>Argas</i>	GRT A
S	<i>Bdella</i>	
T	<i>Demodex</i>	GRT L
V	<i>Dermanyssus</i>	GRT N
W	<i>Eriophyes</i>	GRT G
GMQ A	<i>Gamassellus</i>	
B	<i>Ixodes</i>	GRT D
C	<i>Ornithodoros</i> , ticks	
D	<i>Sarcoptes</i>	GRT P
E	<i>Tetranychus</i>	
F	<i>Trombicula</i> , mites	GRT R
J	Pycnogonida (class), Pantopoda, sea spider	GRU
K	<i>Colosseendeomorpha</i> (order)	
L	<i>Colosseendeis</i>	
M	<i>Nymphonomorpha</i>	
N	<i>Nymphon</i>	
P	<i>Ascorhynchomorpha</i>	
Q	<i>Pycnogonomorpha</i>	
R	<i>Pycnogonum</i>	
S	Pentastomida, Linguatulida	GRV
T	<i>Cephalobaenida</i>	
U	<i>Porocephalida</i>	
V	Tardigrada, water-bear	GRW
W	<i>Heterotardigrada</i>	
X	<i>Eutardigrada</i>	
GMR A	Enterocoelomata	

\* Not in Rothschild.

C	CHAETOGNATHA (phylum), arrow worms	GOM
E	<i>Sagitta</i>	
F	<i>Spadella</i>	
G	<i>Krohnitta</i>	

P	POGONOPHORA (phylum), BRACHIATA, beard worms	
R	Athecanephria (order)	
S	Thecanephria	

GMS A	<u>ECHINODERMATA</u>	GT
B	<i>Pelmatozoa</i> (sub-phylum)	GTQ
C	<i>Crinoidea</i> (class)	GTR
D	Articulata (order)	GTS
	See also Brachiopoda	
E	<i>Rhizocrinus</i>	GTR J
G	<u>Ectotherozoa</u>	GTA
H	<i>Holothuroidea</i> , sea cucumbers	GTP
I	<i>Aspidochirota</i>	GTP A
J	<i>Holothuria</i>	
K	<i>Elasipoda</i>	GTP E
L	<i>Elpidia</i>	
M	<i>Pelagothuria</i>	GTP H
N	<i>Dendrochirota</i>	GTP N
P	<i>Cucumaria</i>	
Q	<i>Pentacta</i>	GTR L
R	<i>Molpadonia</i>	
S	<i>Molpadiida</i>	GTP P

## (Animalia)

	(Echinodermata)	
	(Holothuroidea)	
	(Molpadia)	
GMS T	Apoda (order)	
V	Synapta	GTP S
GMT A	Echinoidea (class)	GTL
B	Perischioechinoidea (subclass)	
C	Cidaroida (order), sea urchin	GTM C
D	Cidaris	
F	Euechinoidea (subclass)	
G	Diadematacea (super-order)	
H	Diadematoida (order)	GTM R
I	Echinothurioida	GTM E
K	Echinacea, sea urchins	
L	Hemitidaroida	
M	Salenia	GTM H
N	Phymosomatoida	
O	Arbacioida	GTM L
P	Temnopleuroidea	
Q	Temnopleurus	
R	Toxopneustes	
S	Echinoida	
T	Echirus	GTM N
V	Echinometra	
GMU A	Gnathostomata	
B	Holocryptoida	
C	Clypeasteroida, sand-dollar, cake-urchin	GTN
D	Clypeasterina (suborder)	
E	Laganina	GTN N
F	Laganum	
G	Scutellina	
H	Rolulina	
J	Atelostomata	
K	Nucleolitoida	
L	Cassiduloida	
M	Holasteroida	
N	Spartangoida, heart urchin	GTO
GMV A	Asteroidea (class), starfish	GTB
B	Phanerozona	
C	Astropecten	GTE H
D	Porcellanaster	GTE P
E	Porania	GTC P
F	Linckia	GTF B
G	Spinulosa	GTC
H	Asterina	GTC J
I	Echinaster	GTC E
J	Solaster	GTC H
K	Forcipulata (order)	GTC
L	Asterias	GTG A
M	Stichastrella	GTG N
N	Brisinga	GTG V
P	Ophinoidea (class), brittle star, basket star	GTH
Q	Ophiurae	
R	Ophiothrix	GTJ T
S	Ophiocomina	GTJ P
T	Amphiura	GTJ K
V	Euryalae	GTK R

(*Animalia*)  
 (Echinodermata)  
 (Euryalae)  
 GMW CHORDATA (phylum)

GMW L	Hemichordata (sub-phylum), Stomochordata, Branchiotremata	
GMW N	Enteropneusta (class), acorn-worm	GUC
O	Balanoglossus	GUE
P	Glandiceps	GUF
R	Pterobranchia	GUG
S	Rhabdopleurida (order)	
T	Cephalodiscida	GUH
V	Planctosphaeroidea	
GMX A	Urochordata, tunicata (subphylum)	GUK
B	Asciidiacea, sea squirt (class)	GUM
C	Enterogona (order)	
D	Aplousobranchiata (suborder)	
E	Clavelina	GUM F
F	Polyclinum	GUM L
G	Didemnum	
I	Phlebobranchiata	
J	Ciona	GUM C
K	Ascidia	GUM A
L	Perophora	GUM P
M	Rhodosoma	
N	Diazona	
P	Pleurogona	
Q	Stolidobranchiata	
R	Styela	
S	Botryllus	GUM T
T	Pyura	
V	Molgula	
W	Aspiculata	
GMY A	Thaliacea (class)	GUN
B	Pyrosomida (order)	GUO
C	Pyrosoma	GUO
E	Doliolida, Cyclomyaria	GUQ
F	Doliolum	GUQ
H	Salpida, Desmomyaria, salp	GUP
I	Salpa	GUP
J	Cyclosalpa	GUP
K	Thalia	
M	Larvacea	GUL
N	Copelata	
P	Appendicularia	GUJ
R	Cephalochordata (subphylum), Acrania Leptocardia	GUS, GVR
S	Branchiostoma, Amphiioxus, lancelet	GUT
GN	VERTEBRATA (sub-phylum)	GUU
GNL	Ichthya, Ichthyology, fishes	
	* Not in Rothschild.	
GNL JNL	(Marine fishes)	
JNN	{ Freshwater fishes )	
JU	{ Fossil forms )	

## (Animalia)

	(Ichthya)	
	((Fossil forms))	
GNM	Marsipobranchii (class), Agnatha, jawless fish	GUV
GNM JU	(Fossils)	
JYC	Agnathids	
JYE	Ostracodermi	
JYG	Cephalaspidae	
JYJ	Pteraspidae	
JYL	Thelodus	
L	Cyclostomata (subclass)	GUV
M	Hyperoartii (order), Petromyzones, lampreys	
N	Petromyzon	GUY
P	Hyperotreta (order), Myxini, hag fishes	GUW
Q	Eptatretus, Bdellostoma	
GNN	(Jawed fishes)	
	* Not in Rothschild. See also <u>Grathostoma</u>	
GNN JU	(Fossil forms)	
JYC	Placodermi (general)	
JYE	Arthrodina	
JYG	Antiarchi	
JYJ	Bothriolepi	
GNO	Selachii (class), Chondropterygii, Chondrichthyes, Elasmobranchi, cartilage fishes	GVF
GNO L	Euselachii (subclass)	GVE
M	Pleurotremata (order), Selachioidei, sharks, etc.	GVF E
N	Notidanioidei (suborder), Hexanchiformes	GVE W, GVE Z
P	Chlamydoselachus	GVE V
Q	Galeoidei, Lamniformes	GVF G, GVF P
R	Odontaspis, Carcharias	
S	Scyliorhinus, Scyllium, dogfish	GVF J
T	Sphyrna, hammerhead shark	GVF R
GNP A	Squaloidei, Tetrapodomorphi	GVF T
B	Squalus, Acanthius	
C	Heterodontus, Cestracion	GVE R
D	Spinax, Etmopterus	GVF Y
E	Oxynotus, Centrina	
G	Squatina, angel-fish	GVE W
G	Hypotremata, rays	
H	Narcobatoidei, Torpediniformes, electric rays	GVG N
J	Torpedo, Narcobatus, Narcasion	GVG P
K	Batoidei	
L	Raja, ray	GVG
M	Pristis, sawfish	GVG L
N	Dasyatis, Trygon, sting-ray	GVG E
P	Myliobatis, eagle-ray	GVG S
Q	Rhinobatos	GVG V
R	Bradyodonti	GVG J
S	Holocephali, rabbit-fishes	GVH
T	Chimaera	GVH M
GNQ	Pisces, osteichthyes, bony fishes	GVI
GNQ L	Ganoidei	GVL B
	* Obsolete class, not in Rothschild. Characterized by ganoid scales.	
LJU	(Fossil forms)	
M	Palaeopterygii (subclass)	

(Animalia)		
(Ichthya)		
(Palaeopteryci)		
G NQ N	Chondrostei (order)	GLV C
	Acipenseriformes	GLV D
NJU	(Fossil forms)	
NJY C	Actinopterygia	
NJY E	Palaeoniscidi	
P	Acipenser, sturgeon	GLV H
Q	Polyodon, paddle-fish	GLV L
R	Cladistia, Polypteriformes	GVJ P
S	Polypterus, bichir	
GNR	Neopterygii, (subclass), Teleostei	GVM
GNR L	Holostei	GVL R
N	Protospondyli (order), bow-fins	GVL M
P	Amia	GVL Z
Q	Ginglymodi (order), Lepisosteiformes, garpikes	GVL S
GNS	Isospondyli (order), Malacopterygii, Clupeiformes	GVN
GNS L	Clupcoidei (suborder)	GVN H
M	Clupea, herring	GVN J
N	Sardina, sardine, pilchard	
P	Megalops, tarpon	Q Chirocentrus
R	Elops	GVN E
S	Engraulis, anchovy	GVN D
T	Albula	GVN K
V	Stomiatoidei	GVN G
W	Thymallus	GVN V
GNT A	Salmonoidei	GVN Z
C	Salmo, Trutta, salmon, trout	GVN T
D	Osmerus, smelt	GVN W
E	Coregonus, whitefish	GVN Y
G	Osteoglossoidei	GVN L
H	Notopteroidei	GVN N
J	Mormyroidei	GVN R
M	Haplomi, Esocoidei	GVP W
P	Esox, pike	GVP W
Q	Dallia, black fish	GVP V
S	Umbra, mid-minnow	GVP W
GNU A	Iniomni, scopeliformes	GVP S
C	Myctophoidei (suborder), Scopelidae	
D	Myctophum	GVP U
E	Lampanyctus, lantern-fish	GVP U
F	Synodus, lizard fish	GVP T
H	Alepisauroidei (suborder)	
J	Chondrobrachii (order)	
L	Cetunculi	
M	Miripinnati	
N	Giganturoidea	
P	Lyomeri, Saccopharyngiformes, gulper eel	GVC W, GVL C
R	Saccopharynx	GVO Y
S	Eurypharynx	GVO Z
GNV A	Ostariophysi	GVP
C	Characoide (suborder)	GVP B
D	Citharinus	
E	Gymnotoidei	
F	Gymnotus, gymnotid eel	GVO *
G	Cyprinoidei, Eventognathi	GVP F
H	Electrophorus, electric ell	GVO *

## (Animalia)

## (Ichthya)

## (Ostariophysi)

	(Electrophorus, electric eel)	
GNV J	Phoxinus, Phonixus, minnows	
K	Cyprinus, carp, goldfish	GVP H
L	Catostomus	GVP G
M	Cobitis, loach	GVP I
N	Siluroidei, Nematognathi, catfish	GVP J
P	Silurus	GVP K
Q	Malapterus, electric catfish	GVP R
R	Ameiurus	GVP L
S	Bagrus	GVP O
T	Doras	GVP M
V	Pimelodus	GVP P
GNW A	Heteromi, Notacanthiformes, Halosauriformes	GVO B
B	Halosaurus	
E	Apodes, Anguilliformes, eels	GVO O, GVO K
F	Anquilla	
G	Conger	GVO P
H	Muraena, moray,	GVO V
J	Synentognathi, scomberesoces, Beloniformes	GVP Z
K	Scomberescoidei	GVT B
L	Scomberesox, skipper	
M	Beloni, garfish	GVP &
N	Exocoetoidae	
P	Exocoetus, flying-fish	GVP *
Q	Salmopercae (order), Percopsiformes	GVQ J
R	Aphredoderus, pirate-perch	GVQ L
GNX	Microcyprini, Cyprinodontes, Cyprinodontiformes	GVP Y
GNX L	Cyprinodontoidei (suborder)	GVP Y
M	Platypoecilus, platyfish, swordfish	
P	Poecilia	
Q	Amblyopsoidei	
R	Phallostethoidei	
T	Solenichthyes, Syngnathiformes, Aulostomiformes	GVS M, GVS R
V	Hippocampus, sea-horse	GVS M
GYN A	Anacanthini, Gadiformes, Macruririformes	GVQ
B	Gadus, cod, whiting	GVQ G
C	Merluccius, hake	GVQ H
D	Macrourus	GVQ B
E	Gaidropsarus, Motella, Onus	
G	Allotriognathi, Lampridiformes	GVQ N
H	Lampris, moon-fish	GVQ Z
J	Trachypterus, ribbon-fish	GVQ V
K	Regalicus	GVQ U
M	Berycomorphi	
N	Beryx	GVS G.
P	Holocentrus	GVS H
R	Zeomorphi	
GOA A	Percomorphi	GVT
C	Percoidei (suborder)	
D	Ammodytes	GVW L
E	Apogon	GVU B
F	Bathymaster	GVW M
G	Brama	GVT S
H	Caranx	

GNV BC Galilee

(*Animalia*)  
 (*Ichthya*)  
 (*Perioporphi*)

		( <i>Caranx</i> )	
GOA	H	Centropomus	GVU C
	J	Chaetodon	GVU U
	K	Chromis	GVV T
	L	Cichla	GVV V
	M	Coris	GVV Z
	N	Coryphaene	GVT Q
	P	Embiotoca	GVV S
	Q	Epinephalus, Cerna	GVU E
	S	Girella	GVU J
	T	Labroides, goldfish	GVV Y
GOB	A	Labrus	GVV Y
	B	Lutjanus, Lutianus	GVU G
	C	Morone, bass	GVU D
	D	Mullus, mullet	GVU M
	E	Perca, perch	GVU A
	F	Pomacentrus	GVT *
	G	Pomatomus	GVU N
	H	Sciena	GVU F
	J	Serranus	GVW D
	K	Sparus	GVW N
	L	Trachinus	GVU V
	N	Uranoscopus	GVU Y
	Q	Teuthidoidei (suborder), Siganoidei	GVU L
	R	Acanthuroidei	GVU K
	S	Kurtoidei	GVW D
	T	Trichiuroidei	GVW N
	V	Gempylus	GVW O
GOC	A	Scombroidei	GVW P
	C	Scomber, mackerel	GVT I
	D	Thunnus, Thynnus, tunny	GVT J
	E	Xiphias, sword fish?	GVT O
	F	Istiophorus	GVT N
	G	Gobioidei	GVW
	H	Gobius, goby	GVW B
	J	Callionymoidei, dragonet	GVW J
	K	Blennioidei	GVW R
	L	Blennius	GVW T
	M	Zoarces, blennies	GVW V
	N	Ophidioidei, cuskeel	
	P	Stromateoidei	GVT U
	Q	Nomeus	GVT Y
	R	Channoidei, Ophicephaloidei	GVS V
	S	Anabantoidei	
	T	Anabas, climbing perch	GVS Z
	V	Osphronemus	
GOD	A	Mugiloidei, Percesoces, grey mullet	
	B	Mugil	GVT D
	E	Atherina	GVT C
	F	Sphyraena, barracuda	GVT E
	H	Polynemoidei (suborder), Rhegnopteri	GVT G, GVT F
	J	Scleroparei (order), Cataphracii, Loricati, mail-cheeked fish	GVV, GVV C
	K	Scorpaenoidei (suborder)	
	L	Trigla, gurnard	GVV P

	(Animalia)		
	(Ichthya)		
	(Scleroparei)		
	(Trigla, gurnard)		
GOD M	Cottus, bull-head, miller's thumb	GVV J	
N	Cyclopterus, lump fish	GVV M	
P	Hexagrammos, Labrax	GVV D	
Q	Liparis	GVV N	
R	Cephalacanthoidei, Dactylopteroidei, flying gurnard	GVV Q	
T	Thoracostei, Gasterostoidea, stickle back	GVS I	
V	Gasterosteus	GVS K	
GOE A	Hypostomides, Pegasiformes, dragon-fish	GVS P	
C	Pegasus	GVS Q	
E	Heterosomata, Pleuronectiformes, flat-fish	GVR	
E	Bothus	GVR B	
G	Pleuronectes, turbot, plaice	GVR F	
H	Limanda, flounder		
J	Solea, sole	GVR P	
K	Paralichthys	GVR C	
L	Hippoglossus, halibut	GVR H	
N	Discocephali, Echeneiformes, sucker-fish	GVW D	
P	Echeneis	GVW E	
Q	Pemora	GVW E	
S	Plectognathii, Tetraodontiformes, trigger-fish, globe-fish	GVY, GVY J	
T	Balistoidei, Sclerodermi	GVY B	
V	Balistes	GVY C	
W	Monacanthus	GVY D	
GOF B	Tetraodont, Gymnodontes	GVY G	X Triacanthus
C	Mola, Orthoriscus, sun-fish	GVY M	
D	Diodon, globe-fish	GVY L	
E	Ostracion	GVY F	
G	Malacichthyes (order), Icosteiformes, rag-fish	GVZ T	
J	Xenopterygh, Gobiesociformes, Cornisher suckers, cling-fish		
L	Haplodoci, Batrachoidiformes, toad-fish	GVW Z	
N	Pediculati, Lophiiformes	GVW Y	
P	Lophioidei (suborder)	GVY P	
Q	Lophius, angler	GVY R	
R	Antennarioidei, sea-toad, frog-fish	GVY T	
S	Antennarius	GVY T	
T	Ogocephalus	GVY V	
V	Ceratioidei, deep-sea angler-fish	GVY W	
GOG A	Opisthomii, Mastacembeliformes, spiny-eel	GVO J	
C	Synbranchii		
D	Alabetoidei	GVO I	
E	Synbranchoidei		
F	Amphipnous		
GOH	Crossopterygii (subclass)	GVJ	
GOH L	Actinistia (order), Coelacanthini	GVJ K	
M	Latimeria, coelacanth		
N	Dipnoi, Dipneusti, Ceratodiformes, lungfish		
P	Protopterus		
Q	Lepidosieren	GVK W	
R	Neoceratodus, Ceratodus	GVK T	

GOH V Tetrapoda

\* Not in Rothschild.

## (Animalia)

## (Tetrapoda)

GOH X	Amphibia & reptilia together * Not in Rothschild.	Herpetology	GW
GOI JU	Amphibia (class) (Fossil forms)	GWA	
JVI	(Devonian)		
JVI L	Ichthyostega		
JVJ	(Carboniferous)		
JJV L	Labyrinthodontia (general) <u>See also</u> Stegocephali GOI PJY C	GWB	
JVJ N	Seymouria		
L	Gymnophiona (order), Apoda, caecilians <u>See also</u> Apoda (Holothuroidea)	GWD	
M	Caecilia	GWD	
P	Caudata (order), Urodela	GWE	
PJU	(Fossil forms)		
PJY C	Stegocephali	GWB	
PJY E	Temnospondyli	GWB B	
PJY G	Lepospondyli	GWB U	
PJY J	Phyllospondyli, Branchiosauria	GWB V	
Q	Cryptobranchoidea (suborder)		
R	Ambystomatoidea	WG T	
S	Ambystoma, Sirendon, mole salamander, axolotl		
GOJ A	Salamandroidea	WG J	
C	Salamandra, fire salamander		
D	Triturus, Triton, newt		
E	Desmognathus, dusky salamander	WG L	
F	Plethodon, woodland salamander	WG P	
G	Amphiuma, Congo eel	GWF A	
J	Proteida	GWE D	
K	Proteus, olm	GWE D	
L	Necturus, mud-puppy, waterdog	GWE D	
N	Trachystomata		
P	Siren, mud-eel	WG V	
Q	Pseudobranchus, dwarf siren	WG W	
GOK	Salientia, Anura		
GOK L	Amphicoela (suborder)	GWJ F	
M	Leiopelma, Liopelma, New Zealand frog		
N	Opisthocoela		
P	Discoglossus, painted frog	GWJ B	
Q	Alytes, midwife toad	GWJ G	
R	Bombina, Bominator, fire bellied toad	GWJ B	
S	Xenopus, clawed toad	GWI C	
T	Pipa, Surinam toad	GWI P	
GOL A	Anomocoela		
C	Pelobates, spade foot toad	GWI H	
E	Procoela		
F	Bufo, toad	GWI I	
G	Hyla, tree frog		
H	Dendrobates, poison frog	GWI Q	
J	Leptodactylus		

	( <i>Animalia</i> )	
	( <i>Amphibia</i> )	
GOL L	( <i>Salientia, Anura</i> )	
M	( <i>Leptodactylus</i> )	
N	Diplasiocoela	GWI V
	Rana, frog	
	Rhacophorus, Polypedates, tree frog	GWK
V	<i>Sauropsida</i>	
X	* Not in Rothschild. Includes many fossil reptiles, all living reptiles & birds, but excludes Therapsids Birds & reptiles (together)	
GOM	<u>Reptilia (class)</u>	GWL
GON	(Fossil forms)	
	* The great expansion & radiation of the reptiles in the Mesozoic resulted in a very large number of fossils, mostly of now extinct groups. The Thecodonts in particular radiated extensively in the Triassic and were ancestral to the modern lizards, snakes, crocodiles & birds, as well as producing the pterosaurs & dinosaurs.	
	* It does not seem helpful to break up this great assemblage by attempting to subsume them to particular modern categories, except where their ancestral relationship is quite specific. So they are located here, before the modern categories. Because of their number, the synthetic notation is modified & the provision for fossil forms in Schedule G1 is expanded.	
GON L	( <i>Seymouria</i> ) See <i>Amphibia</i>	
M	Synapsid reptiles	GWM G
N	See also <i>Fossil mammalia</i> GQJ U	
P	Cotylosauria, stem reptiles	GWM A
R	Pelycosauria	GWM H
S	Dimetrodon	GWM I
T	Therapsida	
X	See also <i>Fossil mammalia</i> GQJ U	
GOO A	Cynodontia	GWM Q
B	Dicynodontia	GWM L
C	Archosauria	GWM W
D	* With teeth in deep sockets	
E	Thecodontia	GWV
F	Aetosauria	
G	Phytauria	
H	See also <i>Crocodylia</i> GOW	
I	Dinosauria	GWY
J	Saurischia	GWY A
K	* 'Reptile-hipped' dinosaurs	
L	Coelurosauria	GWY G
M	* Including 'ostrich dinosaurs'. Compsognathia	
	Carnosauria	GWY G
	Ornithosuchia	
	Megalosauria	
	Allosauria	GWY H
	Tyrannosauria	

## (Animalia)

BC1

## (Reptilia)

## (Fossil forms)

## (Dinosauria)

## (Tyrranosauria)

GOO N	Sauropodia	GWY K
P	Plateosauria	GWY C
Q	Camarasauria	
R	Brachiosauria	
S	Atlantosauria	GWY O
T	Brontosauria	GWY O
V	Diplodocia	GWY P
GOP A	Ornithischia	GWY R
	* 'Bird-hipped' dinosaurs.	
C	Iguanodontia	
D	Duck-billed dinosaurs, hadrosauria	
E	Anatosauria	
F	Stegosauria	
G	Ankylosauria	
H	Ceratopsia, horned dinosaurs	GWY &
J	Protoceratopsia	GWY &
K	Monoclonia	
L	Triceratopsia	
M	Pterosauria	
	See also Birds GP	GWZ
N	Rhamphorynchia	
P	Pterodactylia	
Q	Ichthyosauria	GWM S
R	Mixosauria	GWM S
S	Plesiosauria	GWM V
T	Mosasauria	
GOQ	Testudines (order), Chelonia, turtles & tortoises	GWN
	(Fossil forms)	
GOQ JYC	(Amphichelydia	GWN A
L	Cryptodira (suborder)	
M	Caretta, Thalassochelys	GWN W
N	Chelonia, green turtle	GWN R
P	Chelydra	GWN K
Q	Chrysemys, terrapin	GWN O
R	Clemmys	GWN O
S	Dermochelys, leathery turtle	GWN U
T	Emys	GWN U
V	Graptemys	GWN O
W	Kinosternon	GWN Q
GOR A	Malaclemys	GWN M
B	Pseudemys	GWN Q
C	Terrapene	GWN O
D	Testudo, Greek tortoise	GWN P
E	Trionyx, Amyda, soft-shelled turtle	GWN Y
F	Pleurodira	GWN C
G	Chelus, matamata	GWN I
H	Chelodina, long-necked turtle	GWN R
J	Rhynchocephalia	GWM Y
K	Sphenodon, Hatteria, tuatara	GWM Z
GOS	Squamata	GWO
GOS L	Sauria, Lacertilia, lizards	GWO, GWP
N	Agama	GWP A
O	Amphisbaena	GWP U

(*Animalia*)  
 (*Reptilia*)  
 (*Lizards*)

	( <i>Amphisbaena</i> )	
GOS P	Anguis, slow-worm	GWQ I
Q	Chamaelea, chameleon	GWR
R	Gerrhonotus	GWQ P
S	Heloderma, Gila monster	GWQ J
T	Hemidactylus, gecko	GWP G
GOT A	Iguana	GWQ D
C	Lacerta, green lizard, wall lizard	GWQ F
D	Phrynos	GWQ Q
E	Scinicus	GWQ L
G	Varanus	GWQ G
H	Xenosaurus	GWQ H
J	Zonurus	GWT
GOU	Serpentes (suborder), Ophidia, snakes	GWT U
	(Poisonous snakes)	GWT F
L	Boidae (family)	
	* Not in Rothschild.	
M	Constrictor, Boa	GWT H
N	Python	GWT G
P	Leptotyphlops	GWT A
Q	Coluber	GWT M
R	Ptyas, Zamenis	GWT O
S	Boiga, Dipsadomorphus	GWT R
T	Hydrophis, sea-snake	GWT Y
V	Natrix, Tropidonotus, grass-snake, water-snake	GWT N
GOV B	Naja, cobra	GWT W
C	Micruurus, Elaps	GWT V
D	Vipera, Pelias, viper, adder	GWU
E	Crotalus, rattlesnake	GWU L
F	Bitis	GWU B
G	Cerastes, horned viper	GWU D
H	Lachesis, fer-de-lance	GWU N
J	Agiistrodon, Ancistrodon	GWU P
GOW	Crocodylia (order), Loricata	GWW
	(Fossil forms)	
GOW JYC	Mesosuchia	GWW A
JYD	Teleosauridae	GWW C
JYE	Macrorhynchidae	GWW F
JYF	Atoposauridae	GWW J
JYG	Goniopholidae	GWW L
JYH	Eusuchia	
GOW L	Crocodylus, crocodile	GWW V
M	Gavialis, Indian gavial	GWW Y
N	Tomistoma, Malayan gavial	GWW T
Q	Caiman	
S	Alligator	GWW U
GP	<u>Aves (class), birds, ornithology</u>	GX

\* The terms added below are designed to exemplify how any given taxon may be indexed in special detail within the framework of the normal retroactive synthesis.

(*Animalia*)  
(*Aves, birds*)

GPF E	( <i>Embryology</i> ) ( <i>Foetal membranes</i> )	GX, M
GPF I	Egg, oology	GX, M
JJ	Yolk, yolk sac	
M	Albumen of egg	
Q	Shell of egg	
	( <i>Post-embryo development</i> )	
	* For birds at various stages <u>see</u> Types of birds GPJ L	
GPH T	( <i>Behaviour</i> )	
VL	( <i>Communication</i> )	
VP	<u>Bird song</u>	
	( <i>Flying</i> )	
XC	Flight	
XCT	Attitudes in flight	
XCU	Take off	
XCV	Landing	
XCW	Flapping	
XCW Q	Undulating	
XCX	Gliding	
XCX S	Soaring	
XY	Diving	
XY Q	Hovering	
XY S	Flightlessness	
GPI TJ	( <i>Musculo - skeletal system</i> )	GPI PA - pathology
TMN W	( <i>Clavicle</i> )	
TMN X	Furcula	
TMQ	( <i>Sternum</i> )	
TMR	Ratite sternum * Without ridge or keel.	
TMS	Carinate sternum * With ridge or keel.	
UA	( <i>Integumentary system</i> )	GX, J
UB	Feathers	
UBF DMS	( <i>Moultling</i> )	
UBS	Shaft of feather	
UBS V	Barb	
UBS W	Barbule	
UBW D	Down-feathers	
X	( <i>Reproductive system</i> )	
GPJ G	( <i>Pregnancy</i> )	
H	Egg-laying	
	( <i>By developmental characteristics</i> )	
LL	( <i>Infancy</i> )	
LLO	Pullus, nestlings, chicks	
LLP	Nidicolous chicks	
LLQ	Nidifugous chicks	
LLR	Fledgeling birds	
LLS	{ Juvenile birds, immature birds )	
LM	( <i>Adult bird</i> )	
NK	{ <i>Aquatic birds</i> )	
U	{ <i>Fossil forms</i> )	
YC	Archaeornithes	GXA

	(Animalia)	
	(Aves, birds)	
	(Fossil forms)	
	(Archaeonithes)	
GPJ YE	Archeopteryx	GXA
YG	Neornithes	GXB
YI	Hesperornithiformes	GXB H
YJ	Ichthyornithiformes	
YK	Diatrymiformes	GXB U
GPL	Palaeognathae, Ratitae, flightless birds (general) * Not in Rothschild.	GXC
GPL L	Struthioniformes (order), ostriches	GXC C
M	Struthio	GXC D
N	Rheiformes, rheas	GXC H
P	Rhea	GXC J
Q	Casuariformes	
R	Dromiceius, emu	GXC O
S	Casuarius, cassowary	GXC N
T	Apterygiformes, kiwis	GXC P
V	Apteryx	GXC Q
GPM A	Neognathae, carinatae (general) * Flying birds. Not in Rothschild.	GXF
B	Tinamiformes, Crypturi, tinamous	GXE N
C	Rhyncotus	GXE T
D	Crypturellus	GXE R
E	Nothura	GXE W
F	Nothoprocta	GXE V
G	Gaviiformes, Pygopodes, Colymbiformes, divers	GXE
H	Gavia, Colymbus	GXE D
J	Podicipediformes, Pygopodes, Colymbiformes, grebes	GXE K
K	Podiceps	GXE L
L	Sphenisci formes, penguins	GXF C
M	Spheniscus	GXF E
N	Aptenodytes	GXF T
O	Eudyptes	GXF E
Q	Procellariiformes, Tubinares, petrels	GXG
R	Hydrobates, storm petrels	GXG T
S	Procellarioia, Puffinus, shearwater	GXC A
T	Diomedea, albatross	GXC D
V	Pelecanoides, diving petrel	GXH W
GPN A	Pelecaniformes, Steganopodes	GXH G
C	Phaethon, tropic-bird	GXH B
D	Pelecanus, pelican	GXH G
E	Phalacratorax, cormorant	GXH D
F	Sula, gannet	GXH C
G	Fregata, frigate-bird	GXH F
H	Anhinga, darter	GXH E
J	Ciconiiformes, Ardeiformes, Gressores	GXH
K	Ardea, heron	GXH H
L	Botaurus, bittern	GXH Q
M	Balaeniceps, whale-headed stork	GXH L
N	Scopus, hammerhead	GXH O
O	Ciconia, stork	GXH Q
P	Threskiornis, ibis	GXH R
Q	Platalea, spoonbill	GXH T
S	Phoenicopteriformes, flamingo	GXH U

(Animalia)		
(Aves, birds)		
(Phoenicopteriformes, flamingo)		
(Fossil forms)		
	Palaeolodus	
GPN T	Phoenicopterus	GXH W
GPO	Anseriformes (order)	GXH V
GPO L	Anhima, screamer	GXI
M	Anas, mallard	GXI P
N	Mergus, duck	GXI G
P	Anser, goose	GXI T
Q	Cygnus, swan	GXI Z
R	Aythya, Fuligula, Nyroca	GXI L
S	Somateria, eider-duck	GXI L
T	Oidemia, Oedemia	GXI M
V	Tadorna, sheldrake	GXI R
GPP	Falconiformes (order), Accipitres, raptiores, birds of prey	GXJ
GPP L	Cathartes, turkey vulture	GXJ E
M	Sarcorhamphus, condor	GXJ D
N	Sagittarius, secretary bird	GXJ H
O	Aegipius, black vulutre	
P	Accipiter, Astur, goshawk, sparrow hawk	GXJ O
Q	Vultur	GXJ I
R	Gyps	GXJ J
S	Gypaetus	GXJ M
T	Aquila, eagle	GXJ R
U	Buteo, buzzards, kites	GXJ T
V	Falco, Carchneis, kestrel, falcon	GXJ V
W	Pandion, osprey	GXJ Z
GPQ B	Galliformes	GXK, GXL
	* Use for game birds.	
D	Crax, curassow	GXL C
E	Megapodus	GXL B
F	Lagopus, ptarmigan, grouse	
G	Coturnix, quail	GXL R
H	Tetrao	GXL S
J	Phasianus, pheasant	GXL J
K	Gallus, fowl	GXL O
L	Pavo, peacock	GXL K
M	Perdix, Perdrix, partridge	GXL S
N	Numida, guinea-fowl	GXL H
P	Meleagris, turkey	GXL I
Q	Opisthocomus, hoatzin	GXL V
GPR A	Gruiformes	GXM
B	Mesoenas, roatelo	GXK D
C	Turnix, button quail	GXK T
D	Grus, crane	GXM N
E	Aramus, limpkin	GXM O
F	Psophia, trumpeter	GXM P
G	Rallus, rail	GXM C
H	Heliornis, sun-grebe	GXM Y
J	Rhynochetos, kagu	GXM T
K	Eurypyga, sun-bittern	GXM U
L	Cariama	GXM Q
M	Otis, bustard	GXM R
N	Fulica, coot	GXM L
P	Charadriiformes (order), Laro-Limicolae	GXN
Q	Jacana, lily-trotter	GXN P

	(Animalia)		
	(Aves, birds)		
	(Charadriiformes)		
	(Jacana, lily-trotter)		
GPR R	Charadrius, ringed plover, sand plover	GYN C	
S	Tringa, totanus	GYN E	
T	Phalaropus	GYN F	
V	Actitis, sand piper	GYN S	
W	Stercorarius, Lestris, skua	GYN R	
GPS A	Larus, gull	<i>AD Herring gull</i>	GYN V
B	Sterna, tern	GYN W	
C	Alca, razorbill	GXO	
D	Fratercula, puffin	GXO D	
E	Haematopus, oystercatcher	GXO T	
F	Columbiformes (order)	GXO C	
	(Fossils)	GXO H	
	Didus, dodo	GXP	
G	Treron, green pigeon	GXP P	
H	<u>Columba, pigeon</u>	GXP Z	
I	Goura, crowned pigeon	GXP U	
J	Pterocles, sand-grouse	GXR	
L	Psittaciformes, parrots	GXR D	
M	Psittacus	GXR N	
N	<u>Nestor, Ara, Macaws</u>	GXR F	
O	Cacatua, Kakotoe, cockatoo	GXR O	
P	Melopsittacus, budgerigar	GXR G	
R	Cuculiformes	GXR H	
S	Cuculus, cuckoo	GXR B	
T	Crotophaga, ani	GXR K	
V	Centropus, coucal	GXR T	
W	Musophaga, plantain-eater	GXR R	
GPT A	Strigiformes, owls	GXR N	
C	Tyto	GXR S	
D	Bubo	GXR T	
E	Strix	GXR B	
G	Caprimulgiformes	GXR K	
H	Steatornia, oil bird	GXR T	
I	Podargus, frogmouth	GXR R	
J	Caprimulgus, nightjar	GXR N	
L	Apodiformes, Micropodiformes, Macrochires	GXS	
M	Apus, Micropus, swift	GXS T	
N	Trochilus	GXS V	
P	Archilocus, humming-bird	GXS W	
Q	Coliiformes, muse-birds	GAT	
R	Colius	GAT A	
S	Trogoniformes, trogons	GXQ	
T	Pharomacrus, quezal	GXQ L	
GPU A	Coraciiformes	GXQ J	
C	Alceda, kingfisher	GXQ H	
D	Todus, tody	GXQ R	
E	Momotus, motmot	GXQ C	
F	Merops, bee-eater	GXQ V	
G	Coracias, roller	GXT	
H	Upupa, hoopoe	GXT C	
J	Buceros, hornbill	GXT J	
L	Piciformes	GXT G	
M	Bucco, puff bird	GXT N	
N	Galbula, jacamar	GXT P	
P	Capito, barbet	GXT R	
Q	Indicator, honey-guide		
R	Rhamphastos, toucan		

	(Animalia)	
	(Aves, birds)	
	(Piciformes)	
	(Rhamphastos, toucan)	
GPU S	Picus, Dryocopus, woodpecker	GXT U
GPV	Passeriformes (order)	GXU
GPV L	Eurylaimi (suborder), broadbill	GXU D
M	Tyranni	GXU L
N	Formicarius, antbird	GXU U
O	Furnarius, oven bird	
P	Cotinga	
Q	Cephalopterus, umbrella bird	GXU Q
R	Pipra	
S	Pitta	
T	Menurae	
V	Menura, lyre-bird	GXV C
W	Attrichornis	GXV D
GPW	Passeres, Oscines, song birds	GXV
GPW L	Alauda, lark	GXV G
N	Hirundo, swallow	GXV W
P	Turdus, thrush, blackbird	GXV O
R	Sylvia, warbler, European robin	GXV Q
T	Corvus, raven, crow	GXW J
V	Garrulus, magpie, jay	GXW K
X	Troglodytes, wrens	GXV U
GPK A	Motacilla, wagtail, pipit	GXV H
C	Sturnus, starling	GXW L
E	Meliphaga	GXW N
G	Nectarinia	GXW P
J	Zosterops	GXW O
L	Emberiza	
N	Fringilla, chaffinch	GXW Y
P	Ploceus, weaver-bird	GXW V
		M Accentor, sparrow - all further sparrow etc.

GQ	<u>Mammalia (class)</u>	
	(Special types)	
GQJ SJ	Quadrupeds	GYB
	* Not in Rothschild.	
GQJ U	(Fossil forms)	
YC	(Therapsida) see Reptiles GON R	
GQL	Morganucodon	
	Protatheria (subclass)	
	(Fossil forms)	
GQL JYC	Symmetrodonta	
JYE	Docodonta	
JYJ	Pantotheria, trituberculata	GYC
JYL	Multituberculata	GYA B
JYN	Plagianlacidae	GYA C
M	Monotremata (order)	GYB
P	Tachyglossus, Echidna, spiny anteater	GYB
Q	Ornithorhynchus, Platypus, duckbill platypus	GYB
T	Theria	GYC
X	Metatheria (infra-class)	GYA
GQM	Marsupialia (order)	GYD
	(Fossil forms)	
GQM JYC	Triconodonta	
L	Didelphis, American opossum	GYD U

(Animalia)  
(Mammalia)

## (Metatheria)

GJM M	(Didelphis, American opossum)	
N	Antechinomys, jerboa, pouched mouse	GYD V
P	Dasyurus, 'native cat'	GYD V
Q	Thylacinus	GYD W
R	Myrmecobius	GYD Y
S	Notoryctes	GYD &
T	Perameles, bandicoot	GYD J
W	Trichosurus, common phalanger	GYD Q
GQN A	Vombatus, Phascolomis, wombat	GYD R
C	Tarsipes	
D	Phascolarctos, koala	GYD L
E	Macropus, Kangaroo	GYD M
F	Hypsiprymnodon	GYD M
G	Potorous	GYD I
P	Caenolestes	GYE
U	Eutheria (infra-class), Placentalia	
	Unguiculata	

\* Obsolete class; not in Rothschild.

GQO	Insectivora (order)	GYF
JYC	(Fossil forms)	

JYE	Leptictidae	GYF T
JYG	Adapisoricidae	GYF I

Dimylidae	GYF N	
L	Tenrec, Centetes	GYF O
M	Erinaceus, hedgehog	GYF R
N	Echinosorex, Gymnura, moon-rat	GYF S
P	Sorex, shrew	GYF V
Q	Talpa, common Old World mole	GYF W

R	Desmana	GYF W
S	Chrysochloris, golden mole	GYF L
T	Macroscelides, elephant shrew	GYF G
V	Dermoptera	GYF Z
W	Galeopithecus	GYF Z

GQP	Chiropetra, bats	GYV
GQP L	Megachiroptera (suborder)	GYV A

M	Pteropus, flying fox	GYV B
N	Microchiroptera	GYV C

P	Rhinolophus, horseshoe bat	GYV F
Q	Desmodus, vampire	GYV O
R	Emballonura	GYV Q
S	Noctilio	GYV R
T	Rhinopoma	GYV S

V	Vespertilio	GYV U
GQQ	Primates (order)	GYW

\* Alternative (not recommended) is to  
locate at end of Mammalia.

See note at GRQ.

GQQ L	Prosimii (suborder), Lemuroidea	GYW L
M	Tupaia, tree-shrew	GYW M
N	Lemur, common-lemur	GYW R
P	Hapalemur, gentle lemur	GYW U
Q	Galago, bush-baby	GYW V
R	Loris	

## (Animalia)

## (Mammalia)

## (Primates)

## (Prosimii)

## (Loris)

GQQ S	Daubeutonia, Chiromys, aye-aye	GYW Y
T	Tarsiidae (suborder)	GYW A
V	Tarsius, tarsier	GYW G
GQR	Simias (suborder), Anthropoidea, Pithecoidea	GYY, GYZ F
GQR L	Callithricidae (family)	GYY B
	* Not in Rothschild.	
M	Callithrix, Hapale, marmoset	GYY C
N	Tamarinus, tamarin	GYY D
P	Cebidae, New World monkeys	GYY E
	* Not in Rothschild.	
Q	Cebus, capuchin	GYY G
R	Saimiri, squirrel monkey	GYY N
S	Ateles, spider monkey	GYY J
GQS	Cercopithecidae, Old World monkeys	GYY S
	* Not in Rothschild.	
GQS L	Macaca, macaque	GYY V
M	Cercocebus, mangabey	GYY U
N	Papio, baboon	
P	Cercopithecus, African tree monkey	GYY T
Q	Presbytis, langur	GYY W
GQT	Hominoidea (super family)	HGM J
	* Not in Rothschild.	
GQT L	Pongidae, apes (family)	GYZ F
	* Not in Rothschild.	
M	Hylobates, gibbon	GYZ B
N	Pongo, Simia, orangutan	GYZ S
P	Pan, Anthropopithecus, Troglodytes, chimpanzee	GYZ L
Q	Gorilla	GYZ P
GQU	Hominidae (family)	GYZ V
	* Not in Rothschild.	
	* An <u>alternative</u> (not recommended) is to collocate this class with Physical anthropology in HGM.	
	* If this option is taken proceed as follows:	
	Ada to GQU letters J/W following HGM in HGM J/HGM W.	
	Add to GQV letters J/S following HGN in HGN J/HGN S.	
GQW	Edentata (order)	GYE H
GQW L	Bradypodidae (family), sloths	GYE S
	* Not in Rothschild.	
GQW LJYC	(Fossil forms)	
LJYE	Gravigrada	GYE L
M	Megatherium, giant sloth	GYE O
	Dasypodidae (family), armadillo	GYE Q
	* Not in Rothschild.	
MJY C	(Fossil forms)	
N	Glyptodontidae	GYE Q
O	Dasypus, armadillo	
P	Priodontes, giant armadillo	GYE R
R	Mrymecophagidae, anteaters	GYE U
R	Pholidota (order)	GYE W
S	Manis pangolin, scaly anteater	GYU
T	Lagomorpha	GYU T
V	Ochotona, pika	GYU L
	Lepus, hare	

	(Animalia)	
	(Mammalia)	
	(Lagomorpha)	
	(Lepus, hare)	
GQW W	Oryctolagus, Lepus, rabbit	GYU
X	Sylvilagus, cottontail	GYU
GQX	Rodentia	GYR
GQX L	Sciuroomorpha (suborder)	GYR
M	Sciurus, squirrel	GYR
N	Marmota, Arctomys, marmot, woodchuck	GYR
P	Tamias, chipmunk	GYR
Q	Castor, beaver	GYR
R	Aplodontia, sewellel, mountain beaver	GYR
S	Xerus, African ground squirrel	GYR
T	Citellus, Spermophilus, American ground squirrel, gopher	GYR
V	Glaucomys, American flying squirrel	GYR
W	Geomys, pocket gopher	GYR
X	Heteromys	GYS
GQY A	Anomallurus, scale-tailed flying squirrel	GYS
B	Pedetes, jumping hares	GYS
C	Myomorpha	GYS
D	Peromyscus, deer mouse	GYS
E	Sigmodon, cottontail	GYS
F	Criectus, hamster	GYS
G	Lophiomys, maned rat	GYS
H	Lemmus, lemming	GYS
I	Microtus, vole	GYS
J	Clethrionomys, Evotomys, bank vole	GYS
K	Arvicola, water vole	GYS
L	Pitymys	GYS
M	Ondatra, musk rat [CQY N Rattus, Epimys, rat]	GYS
P	Reithrodontomys, New World harvest mouse	GYS
Q	Oryzomys, rice rat	GYS
R	Mus, house mouse	GYS
S	Gerbillus, gerbil	GYS
T	Spalax, mole rat	GYS
V	Zapus, jumping mouse	GYS
W	Jaculus, Dipus, jerboa	GYS
GRA	Hystricomorpha (suborder)	GYT
GRA L	Bathyergus	GYS
M	Thryonomys	GYT
N	Cavia, guinea pig	GYT
O	Hydrochoerus, capybara	GYT
P	Dasyprocta	GYT
Q	Chinchilla	GYT
R	Myocastor, coypu	GYT
S	Hystrix, porcupine	GYT
T	Erethizon	GYT
V	Cuniculus, Coelogenys, paca	GYT
GRB	Cetacea (order), whales & dolphins	GYL
	(Fossil forms)	
GRB JYC	Archaeoceti	GYL
JYE	Zouglodontidae	GYL
JYG	Microzeuglodontidae	GYL
JYJ	Patriocetidae	GYI
JYL	Agorophiidae	GYL
L	Odontoceti (suborder)	GYL

	(Animalia)	
	(Mammalia)	
	(Cetacea)	
	(Odontoceti)	
GRB M	Mesoplodon, beaked whale	GYL N
N	Physeter, sperm-whale	GYL M
O	Dolphinus, dolphin	GYL T
P	Orcinus, killer whale	GYL W
Q	Phocaena, porpoise	GYL U
R	Mysticeti (suborder)	GYL F
S	Rhachianectes, grey whale	GYL H
T	Balaenoptera, rorqual	GYL G
V	Balaena, right whale	GYL I
	Carnivora (order)	GYM
GRC	(Fossil forms)	
GRC JU	Crocodilia	GYM A
JYC	Oxyaenidae	GYM R
JYE	Hyaenodontidae	GYM T
JYG	Canidae (family)	GYO U
L	* Not in Rothschild.	
M	Canis, wolf, dog, jackal	GYO W
P	Vulpes, fox	GYO V
Q	Ursidae (family)	GYO N
R	* Not in Rothschild.	
S	Ursus, bear	GYO P
T	Thalarctos polar bear	GYO Q
V	Procyonidae (family)	
W	* Not in Rothschild.	
X	Procyon, raccoon	GYO Q
	Potos, Kinkajou	GYO R
	Ailurus, panda	GYO R
GRD	Mustelidae (family)	GYO B
	* Not in Rothschild.	
GRD L	Mustela, Putorius, ferret, weasel, mink, ermine, polecat, stoat	GYO E
M	Martes, marten, sable	
N	Meles, badger	
P	Spilogale, spotted skunk	GYO M
Q	Lutra, otter	GYO L
R	Herpestes, mongoose	GYO C
S	Hyaena	GYP F
T	Viverra, civet	GYO Z
GRE	Felidae (family), cats	GYP C
	* Not in Rothschild.	GYP L
GRE L	Felis silvestris, wild cat	GYP N
M	* Not in Rothschild.	
	Felis domesticus	GYP P
O	* Not in Rothschild.	
P	Felis, Puma, mountain lion, cougar	GYP W
Q	Panthera leo, lion	GYP V
R	Panthera tigris, tiger	GYP U
S	Panthera jaguar, jaguar	GYP S
GRF	Panthera, panther, leopard	GYP T
GRF L	Acinonyx, cheetah	GYP Z
M	Pinnipedia (order)	GYN
	Otariidae (family)	
	* Not in Rothschild.	
	Otaria, sea-lion	GYN D

	(Animalia)		
	(Mammalia)		
	(Pinnipedia)		
	(Ontaria, sea-lion)		
GRF N	Zalophus, Californian sea-lion	GYN F	
P	Callorhinus	GYN I	
Q	Archocephalus	GYN J	
R	Odobaenus, walrus	GYN W	
S	Phocidae (family)	GYN P	
T	* Not in Rothschild. Phoca, seal		
V	Halichoerus, grey seal, Atlantic seal	GYN Q	
W	Mirounga, elephant seal	GYN Q	
X	Crystophora	GYN V	
GRG	Tubulidentata	GYE V	
GRG L	Orycteropus, aardvank	GYE V	
GRH	Proboscidea, elephant (Fossil forms)	GYG T	
GRH JYC	Moeritheridae	GYG W	
JYE	Deinotheridae	GYG V	
JYG	Mastodonts	GYG U	
L	Loxodoma, African elephant	GYG U	
N	Elephas, Asiatic elephant	GYG O	
Q	Hyracoidea	GYG R	
R	Dendrohyrax, tree hyrax	GYG P	
S	Procavia, coney	GYK	
T	Sirenia (Fossils)		
T JYC	Desmostylidae		
V	Dugong	GYK E	
W	Trichechus, manatee	GYK D	
GRH	Ungulata * Obsolete class, mostly comprising Perissodactyla & Artiodactyla. Not in Rothschild.	GYG G	
GRI JYC	(Fossil forms)		
JYE	Condylarthra	GYG A	
GRJ	Taligrada	GYG A	
GRJ JYC	Perissodactyla (order)	GYH	
JYE	(Fossil forms)		
JYG	Titanothériidae	GYE G	
L	Brontothériidae		
M	Chalicotheriidae		
N	Hippomorpha (suborder)	GYH H	
NJU	Equus	GYH J	
P	Horse		
Q	(Fossil forms)		
S	Ass	GYH M	
T	Zebra	GYH L	
T JYC	Ceratomorpha (suborder)		
V	Tapirus, tapir	GYH R	
GRK	(Fossil forms)		
GRK JU	Lophiodontidae	GYH Q	
JYC	Rhinoceros	GYH W	
JYE	Artiodactyla (order)	GYI	
	(Fossil forms)		
	Oromerycidæ		
	Leptochoeridæ		

	(Animalia)	
	(Mammalia)	
	(Artiodactyla)	
	(Fossil forms)	
	(Leptochoeridae)	
GRK JYG	Dichobunidae	GYI B
JYJ	Anthracotheriidae	GYI J
L	Suiformes (suborder)	GYI L
M	Sus, pig	
N	Tayassu, peccary	GYI K
P	Hippopotamus	GYI W
R	Tylopoda (suborder)	GYI Z
S	Lama, Auchenia, llama, alpaca, vicuna, guanaco	
T	Camelus, camel, dromedary	GYI Y GYI R
GRL	Ruminantia	
	(Fossil forms)	
GRL JYC	Caenotheriidae	
JYE	Xiphodontidae	
JYG	Hypertragulidae	
L	Tragulus, chevrotain	GYI S
M	Cervidae (family), deer	GYJ A
	* Not in Rothschild.	GYJ I
N	Moschus, musk deer	
P	Dama, fallow deer	GYJ F
Q	Cervus, red deer, wapiti, American elk	GYJ G
R	Alces, European elk, moose	GYJ H
S	Rangifer, reindeer, caribou	GYJ J
T	Giraffidae (family)	
	* Not in Rothschild.	
GRL V	Okapi	GYJ J
W	Giraffa, giraffe	GYJ L
GRM	Bovidae (family)	
	* Not in Rothschild.	
GRM L	Taurotragus, eland	GYJ S
M	Bubalus, buffalo	GYJ U
N	Bos, cattle, yak	GYJ T
P	Bison, American 'buffalo'	GYJ U
Q	Hippotragus, roan antelope	GYJ R
R	Antilope, Indian antelope	GYJ Q
S	Cephalophus, duiker	GYJ N
T	Gazella, gazelle	GYJ Q
V	Rupicapra, chamois	GYJ Y
W	Ovibos, musk ox	GYJ Z
GRN C	Capra, goat, ibex	GYJ W
E	Ovis, sheep	GYJ V
G	Hydropotes, Chinese water deer	GYJ F
		GYW
GRQ	Primates (order)	
	* The preferred place for this class, reflecting its taxonomic position in modern phylogenetic classification, is at GQQ. However, in view of BC2 (as of BC1) is that it interprets all classes following Zoology as reflecting special aspects of the behaviour of the primate <u>Homo sapiens</u> . In BC1, this led to the locating of Primates as the last in the orders of Mammalia.	

(Sheep + goats)

(Animalia)  
(Mammalia)  
(Primates)

- \* For libraries wishing to preserve this collocation of Primate biology with Human biology & behaviour at H onwards, an alternative (not recommended) is provided here. It should be noted that for libraries adopting the alternative for Applied biology at GT/GY, this collocation is in any case already compromised & this alternative (locating Primates at GRQ/GRV) becomes less attractive.
- \* For libraries adopting this alternative, proceed as follows:
  - Add to GR letters Q/V following GQ at GQQ/GQV.

GRX Applied biology - *Resource Management*

- \* This position is an alternative (not recommended) to locating this class in Technology, at UA/UG.
- \* Libraries adopting this option should proceed as indicated below.

GS	Agriculture, farming (plant & animal husbandry together)	- plants see FY.
GT	Animal husbandry	<u>Add</u> to GS letters A/Y following UA.
GU	Veterinary science	<u>Add</u> to GT letters A/Y following UB.
GV	Forestry	<u>Add</u> to GU letters A/Y following UC. - add to GV letters from TH. - NB vet. sci. implies domestic animals
GW	Wild life exploitation, hunting & fishing	<u>Add</u> to GV letters A/Y following UD. <u>Add</u> to GW letters A/Y following UE. GW <u>Add</u> to GX letters A/Y following UF.
GX	Conservation areas + but see EGU National Parks	+ EGO ASX
GY	Human and general ecology, human environment in general	Convenience
		<ul style="list-style-type: none"><li>* Most of the literature on general ecology is concerned overwhelmingly with the effect on the environment of human intervention &amp; in its turn the effect of this on mankind.</li><li>* This class takes general considerations only (including the 'ecological movement'). Most of the literature on purposive control of the environment is collocated at Environmental technology (Class U). Specific environmental disasters go with their subject (e.g. natural disasters in DY; epidemics in H).</li></ul>
GYO	(Ecology of <u>homo sapiens</u> )	
		<u>Add</u> to GY letters O/Y following EG. <u>Add</u> to GZ letters A/S following EH - e.g. Urban ecology GZS C.