

Phylogeny		Species	Bile salt class(es)	C₂₇ alcohols or acids	C₂₄ acids
Class: Agnatha (jawless fish)					
Group: Cyclostomata					
O: Myxiniiformes	F1	Hagfish	C ₂₇ 5 α -alcohols	I-5 α -, VII-5 α -, VIII-5 α -, others	
O: Petromyzoniformes	F2	Lamprey	C ₂₇ , C ₂₄ 5 α -alcohols	III--5 α , IX-5 α ,	
Class: Chondrichyes	F3	Southern stingray	C ₂₇ 5 β -alcohols	5 β -XXIII-5 β	
Subclass: Elasmobranchii	F4	Common sawfish	C ₂₇ 5 β -alcohols	5 β -XXIII-5 β	
	F5	Piked dogfish	C ₂₇ 5 β -alcohols	5 β -XXIII-5 β	
	F6	White tip reef shark	C ₂₇ 5 β -alcohols	5 β -XXIII-5 β	
	F7	Zebra shark	C ₂₇ 5 β -alcohols	5 β -XXIII-5 β	
	F8	Blue shark	C ₂₇ 5 β -alcohols	5 β -XXIII-5 β	
	F9	Thresher shark	C ₂₇ 5 β -alcohols	5 β -XXIII-5 β	
Subclass: Holocephalii	F10	Spearnose chimaera	C ₂₇ 5 β -alcohols	XIII-5 β , XIV-5 β	
Class: Osteichthyes (bony fish)					
Group: Sarcopterygii	F11	Coelacanth	C ₂₇ 5 α -alcohols	XII-5 α , XVI-5 α	
	F12	S. American Lungfish	C ₂₇ alcohols	NA (complex mixture)	
	F13	African mudfish	C ₂₇ 5 α - alcohols	VI-5 α , XVI-5 α	
Subclass: Actinopterygii	F14	Reedfish (birchir)	C ₂₇ alcohols, C ₂₄ acids	NA	9
Infraclass: Chondrosteii	F15	Sturgeon	C ₂₇ alcohols, C ₂₄ acids	NA	9
	F16	Paddlefish	C ₂₇ alcohols; C ₂₄ acids	NA	9
Infraclass: Neopterygii	F17	Spotted gar	C ₂₄ 5 β - acids		9
	F18	Bowfin	C ₂₇ alcohols; C ₂₄ 5 β - acids	NA	9
Infraclass: Teleostei					
SO: Osteoglossomorpha	F19	South American clown knife fish	C ₂₇ alcohols	NA	
	F20	Asian arawana	C ₂₇ alcohols, C ₂₄ 5 β acids	NA	1;9
	F21	Arapaima	C ₂₇ 5 β -alcohols, C ₂₇ , C ₂₄ 5 β - acids	XIX-5 β , XXV-5 β , others	9

SO: Elopomorpha		F22	European eel	C ₂₇ 5 α - ,5 β alcohols; C ₂₄ 5 β - acids	XIV-5 α ,XIV-5 β I	9
		F23	Pelican eel	C ₂₄ 5 β - acids		9
		F24	European conger	C ₂₄ 5 β - , 5 α - acids		9,38A
SO: Clupeomorpha		F25	California anchovy	C ₂₄ 5 β - acids		1,9
		F26	South American pilchard	C ₂₄ 5 β - acids		1,9
SO: Osteriophysii						
O: Gonorhynchiformes		F27	Milkfish	C ₂₄ 5 β - acids		9
O: Cypriniformes		F28	White sucker	C ₂₇ 5 α - alcohols	XVII--5 α	
		F29	Carp	C ₂₇ 5 α - alcohols	XVII--5 α	1,9
		F30	Goldfish	C ₂₇ 5 α - alcohols	XVII--5 α	
		F31	Zebrafish	C ₂₇ 5 α - alcohols	XVII--5 α	
		F32	Taiwan ku fish	C ₂₇ alcohols	XVII--5 α , others	
		F33	Barb	C ₂₇ 5 α - alcohols	XVII--5 α	
O: Siluriformes		F34	Blue catfish	C ₂₄ 5 β - acids		1,9
SO: Protoacanthopterygii						
O: Salmoniformes		F35	Brown trout	C ₂₄ 5 β - acids		1,9
		F36	(<i>Coregonus vandesius</i>)	C ₂₄ 5 β - acids		1,9
O:Osmeriformes		F37	Baird's smoothhead	C ₂₇ alcohols, C ₂₄ 5 β - acids	NA	9
O: Lophiformes		F38	Kroyer's deep sea anglerfish	C ₂₇ 5 β - alcohols, C ₂₇ , C ₂₄ acids	NA	9, others
		F39	Bulbous dreamer	C ₂₇ alcohols, C ₂₄ 5 β - acids	NA	9
O:Gadiformes		F40	Three bearded rockling	C ₂₄ 5 β - acids		9
		F41	Ling	C ₂₄ 5 β - acids		9
		F42	Pollack	C ₂₄ 5 β - acids		9
		F43	Popeye grenadier	C ₂₄ 5 β - acids		9
		F44	Common grenadier	C ₂₄ 5 β - acids		9
		F45	Greater forkbeard	C ₂₄ 5 β - acids		9

Superorder: Acanthopterygii					
O: Beloniformes	F46	Medaka	C ₂₇ acids, C ₂₄ acids	NA	9
	F47	Garfish	C ₂₄ 5β- acids		9
	F48	Hound needlefish	C ₂₄ 5β- acids		9
	F49	Pacific saury	C ₂₄ 5β- acids		1,9
O: Beryciformes	F50	Common fang tooth	C ₂₄ 5β- acids		9
	F51	Orange roughy	C ₂₄ 5β- acids		9
O: Syngnathiformes	F52	Leafy sea dragon	C ₂₇ acids, C ₂₄ 5β- acids	NA	1,9
	F53	Longspine snipefish	C ₂₄ 5β- acids		1,9
O: Tetraodontoformes	F54	Scrawled file fish,	C ₂₄ 5β- acids		9
O: Aulopiformes	F55	Tripod fish	C ₂₄ 5β- acids		1,9
	F56	Ground spearing	C ₂₄ 5β- acids		1,9
O: Pleuronectiformes	F57	Green spotted puffer	C ₂₄ 5β- acids		9
	F58	California halibut	C ₂₄ 5β- acids		9
	F59	Bigmouth sole	C ₂₄ 5β- acids		9
	F60	Common dab	C ₂₄ 5β- acids		9.
	F61	Long rough dab	C ₂₄ 5β- acids		9
	F62	Lemon sole	C ₂₄ 5β- acids		0
	F63	European flounder	C ₂₄ 5β- acids		9
	F64	Green roughbacked puffer	C ₂₄ 5β- acids		9
O: Scorpaeniformes	F65	Luna lionfish	C ₂₄ 5β- acids		1,9
	F66	California scorpion fish	C ₂₄ 5β- acids		1,9
	F67	Pallid sculpin	C ₂₄ 5β- acids		9
	F68	Gray gurnard	C ₂₄ 5β- acids		9

^aAbbreviations: SO, superorder; O, order.

Table 6S. Bile salts of perciform fish (Superorder: Acanthopterygii)					
Phylogeny	SN	Species	Bile salt class(es)	C₂₇ alcohols or acids	C₂₄ bile acids
^a O: Perciformes					
F: Acanthuridae	F69	Dussimier's surgeon fish	C ₂₄ 5β- acids		1,9
	F70	Six-plate sawtail	C ₂₄ 5β- acids	C ₂₄ 5β- acids	1,9
F: Callionymidae	F71	Dragonet	C ₂₄ 5β- acids	C ₂₄ 5β- acids	1,9
F: Centrarcidae	F72	Rock bass	C ₂₄ 5β- acids	C ₂₄ 5β- acids	1,9
F: Chactodontidae	F73	Highfin coralfish	C ₂₇ alcohols, C ₂₄ 5β- acids	XIV-5β,XVII-5β	9
	F74	Black-finned coral fish	C ₂₇ alcohols, C ₂₄ 5β- acids	NA	9
	F75	Three banded butterfly fish	C ₂₇ alcohols, C ₂₄ 5β- acids	NA	1,9
	F76	Raccoon butterfly fish	C ₂₇ alcohols, C ₂₄ 5β- acids	NA	9
F: Cichlidae	F77	Soda cichlid	C ₂₄ 5β- acids		9
	F78	Peacock bass	C ₂₄ 5β- acids		1,9
	F79	Blue tilapia	C ₂₄ 5β- acids		9, others
	F80	Mozambique tilapia	C ₂₄ 5β- acids		9
F: Haemulidae	F81	Chicken grunt	C ₂₄ 5β- acids		1,6
F: Polynemidae	F82	Four-finger threadfin	C ₂₄ 5β- acids		1,9
F: Pomacantiidae	F83	Keyhole angelfish	C ₂₄ 5β- acids		1,9
	F84	Bicolor angelfish	C ₂₄ 5β- acids		9,14
	F85	Herald's angelfish	C ₂₄ 5β- acids		9,14
	F86	Vermiculated angelfish	C ₂₄ 5β- acids		9, others
	F87	Scribbled angelfish	C ₂₄ 5β- acids		9,14
	F88	Queen angelfish	C ₂₄ 5β- acids		9,14
	F89	Lemonpeel angelfish	C ₂₄ 5β- acids		9
	F90	Blue-girdled angelfish	C ₂₄ 5β- acids		9,16
	F91	French angelfish	C ₂₄ 5β- acids		1,9,14,16
	F92	Semicircle angelfish	C ₂₄ 5β- acids		9
	F93	Clarion angel fish	C ₂₄ 5β- acids		9,14

F: Menidae	F94	Moon fish	C ₂₇ 5β-alcohols; C ₂₄ 5β- acids	XVII-5β	1,9
	F95	Three-spot damselfish	C ₂₄ 5β- acids		1,9
F: Priacanthidae	F96	Glasseye	C ₂₄ 5β- acids		1,9
F: Scombridae	F97	Skipjack,	C ₂₄ 5β- acids		1,9
	F98	Mackerel	C ₂₄ 5β- acids		1,9
F: Serranidae	F99	Golden hind,	C ₂₄ 5β- acids		9
	F100	Speckled-fin grouper	C ₂₄ 5β- acids		1,9
F: Sparidae	F101	Gilthead sea bream	C ₂₄ 5β- acids		1,9
F: Sphyraenidae	F102	Pacific barracuda	C ₂₄ 5β- alcohols, C ₂₄ 5β- acids	XVI-5β	1,9
F: Trichiuridae	F103	Black scabbardfish	C ₂₄ 5β- acids		1,9

^a Abbreviations: SN, species number; O, order; F, family

Table 7S Bile salts of squamates					
Phylogeny	SN	Species	Bile salt class(es)	C ₂₇ acids	C ₂₄ acids
Gekkota					
Eublepharidae	R23	Fat-tailed gecko	C ₂₄ 5β- acids		1,9,14, other
Gekkonidae	R24	Malayan bent-toed gecko	C ₂₄ 5β- acids		1,9
	R25	Tokay gecko	C ₂₄ 5α- acids		37A,38A
	R26	Gliding gecko	C ₂₄ 5α- , 5β acids		1,9,38A
Scinciformata					
Scincidae	R27	Pygmy spiny tailed skink	C ₂₇ 5β-	M	
	R28	Blotched blue tongue skink	C ₂₇ 5α- , 5β acids	F.M.V,AK	
Gerrhosauridae	R29	African plated lizard	C ₂₇ 5β- acids; C ₂₄ 5β- acids	V, others	9, other
Cordylidae	R30	Armadillo girdled lizard	C ₂₇ acids	V, others	
	R31	Warren's girdle-tailed lizard	C ₂₇ acids	V, others	
Laterata	R32	Blue ameiva	C ₂₄ 5β- acids		1,9,14
	R33	Caiman lizard	C ₂₄ 5β- acids		9
	R34	Tegu	C ₂₄ 5β- acids		9
	R35	Emerald lacerta	C ₂₄ 5α- , 5β acids		9,38A
Toxicofera					
Anguidae	R36	California alligator lizard	C ₂₇ 5β- acids	V	
	R37	Scheltopusik glass lizard	C ₂₇ 5β- acids	V	
Varanadae	R38	White-throated monitor	C ₂₇ 5β- acids; C ₂₄ 5β- acids	V	9
	R39	Blue-tailed monitor	C ₂₇ 5β- acids	V	
	R41	Quince monitor	C ₂₇ 5β- acids	V	
	R42	Lace monitor	C ₂₇ 5β- acids	V, others	
Iguanidae	R43	Casque-headed iguana	C ₂₄ 5α-, 5β- acids		1,37A,38A
	R44	Turk and Caicos iguana	C ₂₄ 5α- acids		38A
	R45	Chuckwalla	C ₂₄ 5α- acids		38A
	R46	Knight anole	C ₂₄ 5α- , 5β acids		1,38A
	R47	Jamaican anole	C ₂₄ 5α- acids		38A

	R48	Jamaican gray anole	C ₂₇ 5β- acids; C ₂₄ 5β- acids	V	38A
Chamaeleontidae	R49	Armored chameleon	C ₂₄ 5α- acids		38A
	R50	Veiled chameleon	C ₂₄ 5α- acids		38A
	R51	Spectral pygmy chameleon	C ₂₄ 5α- acids		38A
Uromastycinae	R52	African spiny tailed lizard	C ₂₄ 5α- acids		38A
	R53	Indian spiny-tailed lizard	C ₂₄ 5α- acids		38A,39A
	R54	Ornate spiny-tailed lizard	C ₂₄ 5α- acids		38A,39A
Amphibolurinae	R55	Frilled lizard	C ₂₄ 5α- , 5β acids		9,38A
Agaminae	R56	Red-headed rock agama	C ₂₄ 5α- acids		38A
	R57	Starred agama	C ₂₄ 5α- acids		38A

Table 8s Bile salts of snakes				
Phylogeny	SN	Species	Bile salt class(es)	Bile acids
Serpentes				
Alethinopha				
Cylindrophiidae	R58	Pipe snake	C ₂₄ 5β-acids	34,35
	R59	Blotched pipe snake	C ₂₄ 5β-acids	34,35
Uropeltidae	R60	Shield-tail snake	C ₂₄ 5β-acids	9,35
Macrostromata				
Pythonidae	R61	Woma python	C ₂₄ 5β-acids	9,34,35
	R62	D'Albert's python	C ₂₄ 5β-acids	35
	R63	Indian rock python	C ₂₄ 5β-acids	35
	R64	Ball python	C ₂₄ 5β-acids	9,35
	R65	African rock python	C ₂₄ 5β-acids	35
	R66	Boelin's python	C ₂₄ 5β-acids	9,35
	R67	Carpet python	C ₂₄ 5β-acids	9,35
	R68	Argentine boa	C ₂₄ 5β-acids	35
Boinae	R69	Red-tailed boa	C ₂₄ 5β-acids	35
	R70	Solomon Islands boa	C ₂₄ 5β-acids	35
	R71	Emerald tree boa	C ₂₄ 5β-acids	1,9,35
	R72	Green anaconda	C ₂₄ 5β-acids	35
	R73	Brown sand boa	C ₂₄ 5β-acids	9,35
Caenophidia				
Achrocordidae	R74	Elephant trunk snake	C ₂₄ 5β-acids	9
	R75	File snake	C ₂₄ 5β-, 5α- acids	9,14,38A
Colubroidea	R76	White spotted slug snake	C ₂₄ 5β-acids	9
	R77	Mountain slug snake	C ₂₄ 5β-acids	9

Viperidae				
Azemiopinae	R78	White headed viper	C ₂₄ 5β-acids	9, others
Crotolinae	R79	Eyelaſt viper	C ₂₄ 5β-acids	9
	R80	Eastern diamond back rattlesnake	C ₂₄ 5β- C ₂₄ 5α- acids	9, 38A
	R81	Rattleſſe rattlesnake	C ₂₄ 5β- acids	9
	R82	Sidewinder	C ₂₄ 5β-, 5α- acids	9, 14
	R83	Banded rock rattlesnake	C ₂₄ 5β-bile acids	9
	R84	Southweſt ſpeckled rattlesnake	C ₂₄ 5β-, 5α- acids	9, 38A
	R85	Buſhmaſter	C ₂₄ 5β-, 5α- acids	9, 38A
	R86	McGregor's tree viper	C ₂₄ 5β-acids	9
	R87	Sri Lanka tree viper	C ₂₄ 5β-acids	9
Viperinae	R88	Puff adder	C ₂₄ 5β-acids	9, 13, 15
	R89	Mountain adder	C ₂₄ 5β-acids	13, 15
	R90	Eastern hornsman adder	C ₂₄ 5β-acids	13, 15
	R91	Gaboon viper	C ₂₄ 5β-acids	13, 15
	R92	Rhinoceros viper	C ₂₄ 5β-acids	13, 15
	R93	Horned ſand viper	C ₂₄ 5β-acids	5, 13, 36
	R94	Leaf-noeſe viper	C ₂₄ 5β-acids	9, 13
	R95	Turan blunt-noſe viper	C ₂₄ 5β-acids	9, 13, 15
	R96	Ruſſell's viper	C ₂₄ 5β-acids	9, 13, 15
Elipida	R97	Storm's water cobra	C ₂₄ 5β- acids	9, others
Elapinae	R98	Banded krait	C ₂₄ 5β- acids	9, others
	R99	South African mamba	C ₂₄ 5β- acids	9
	R100	Ringhals ſnake	C ₂₄ 5β- acids	9
	R101	Blue Malayſian coral ſnake	C ₂₄ 5β- acids	9, others
	R102	Egyptian banded cobra	C ₂₄ 5β- acids	9
	R103	King cobra	C ₂₄ 5β- acids	9, others

Hydrophiinae	R104	Erabu sea snake	C ₂₄ 5β- acids	9
	R105	Collett's black snake	C ₂₄ 5β- acids	9
Natricidae	R106	Plain-bellied water snake	C ₂₄ 5β- acids	9
	R107	Banded water snake	C ₂₄ 5β- acids	9
	R108	Diambondback water snake	C ₂₄ 5β- acids	9
	R109	Bicolor stream snake	C ₂₄ 5β- acids	9
	R110	Red-bellied snake	C ₂₄ 5β- acids	9
Xenodontinae	R111	Mudsnake	C ₂₄ 5β- acids	13,15
Colubrinae	R112	Green tree snake	C ₂₄ 5β-,5α- acids	9,38A
	R113	Boomslang	C ₂₄ 5β- acids	9
	R114	Indigo snake	C ₂₄ 5β- acids	9
	R115	Long-nosed tree snake	C ₂₄ 5β- acids	9
	R116	Aesculapian snake	C ₂₄ 5β- acids	9
	R117	Mandarin rat snake	C ₂₄ 5β- acids	9
	R118	Red head rat snake	C ₂₄ 5β- acids	9
	R119	Four-lined rat snake	C ₂₄ 5β- acids	9
	R120	Speckled king snake	C ₂₄ 5β- acids	9,11
	R121	Milk snake	C ₂₄ 5β- acids	9
	R122	Striped ground snake	C ₂₄ 5β- acids	9
	R123	San Diego gopher snake	C ₂₄ 5β-,5α -acids	9,38A
	R124	Queretero gopher snake	C ₂₄ 5β- acids	9
	R125	Northern ground snake	C ₂₄ 5β- acids	9
	R126	African tiger snake	C ₂₄ 5β- acids	9
	R127	Twig snake	C ₂₄ 5β- acids	9
	R128	Western coach whip	C ₂₄ 5β- acids	9
	R129	Striped whip snake	C ₂₄ 5β- acids	9
	R130	Dhaman	C ₂₄ 5β- acids	9

Table 9s Bile salts of birds					
Phylogeny	SN	Species	Bile salt class(es)	C ₂₇ alcohols, C ₂₇ acids	C ₂₄ acids
Struthiformes					
Casuaridae	A1	Seram double-wattled cassowary	C ₂₇ acids	NA	
Tinamiformes					
Tinamidae	A2	Elegant crested tinamou	C ₂₇ alcohols; C ₂₇ acids	NA	
	A3	Red-winged tinamou	C ₂₇ alcohols; C ₂₇ -5 β acids	K,P,S	
Anseriformes					
Anhimidae	A4	Southern screamer	C ₂₄ 5 β - , 5 α - acids;		1,37A
Dendrocygninae	A5	Black-bellied tree duck	C ₂₄ 5 β - acids		1,31
	A6	Southern fulvous whistling duck	C ₂₄ 5 β - acids		1
Anserinae	A7	Barnacle goose	C ₂₄ 5 β - acids		1,8,31
	A8	Coscoroba swan	C ₂₄ 5 β - acids		1
	A9	Black-neck swan	C ₂₄ 5 β - acids		1,8,31
	A10	Dusky Canada goose	C ₂₄ 5 β - acids		1,5
	A11	Swan goose	C ₂₄ 5 β - acids		1
	A12	Greater white-fronted goose	C ₂₄ 5 β - acids		1
Tadorninae	A13	White-faced tree duck	C ₂₄ 5 β - acids		1
Merginae	A14	Red-billed pintail	C ₂₄ 5 β - acids		1,5
	A15	Northern pintail	C ₂₄ 5 β - acids		1,5
	A16	American common eider	C ₂₄ 5 β - acids		1,15
	A17	Buffle-head duck	C ₂₄ 5 β - acids		1
	A18	Barrow's goldeneye duck	C ₂₄ 5 β - acids		1,31
	A19	Cape teal	C ₂₄ 5 β - acids		1,5

Anatinae	A20	Blue-wing teal	C ₂₄ 5β- acids	1,5
	A21	African yellow-billed duck	C ₂₄ 5β- acids	1,5
	A22	Green-wing teal	C ₂₄ 5β- acids	1,5
	A23	Cinnamon teal	C ₂₄ 5β- acids	1,5
	A24	Baikal teal	C ₂₄ 5β- acids	1,5
	A25	Mallard duck	C ₂₄ 5β- acids	1,5
	A26	Hotentot teal	C ₂₄ 5β- acids	1,5
	A27	Spectacled duck	C ₂₄ 5β- acids	1,5
	A28	South African black duck	C ₂₄ 5β- acids	1,5
	A29	Crested duck	C ₂₄ 5β- acids	1,5
	A30	Ruddy shell duck	C ₂₄ 5β- acids	1,5
	A31	Ring-necked duck	C ₂₄ 5β- acids	1,5
	A32	Cotton pygmy goose	C ₂₄ 5β- acids	1,5
	A33	Pink-eared duck	C ₂₄ 5β- acids	1
	A34	Bronze-wing duck	C ₂₄ 5β- acids	1,5
	A35	Gadwall	C ₂₄ 5β- acids	1,5
Galliformes				
Cracidae	A36	Yellow-knob curassow	C ₂₄ 5β- acids	1,28
	A37	Black curassow	C ₂₄ 5β- acids	1
Numidadae	A38	Kenyan crested guinea fowl	C ₂₄ 5β- acids	1
Meleagrididae	A39	Ocelated turkey	C ₂₄ 5β- acids	1,9
	A40	Common turkey	C ₂₄ 5β- acids	1,9

Perdicinae	A41	Crested wood partridge	C ₂₄ 5β- acids		1, others
	A42	Arabian red-legged partridge	C ₂₄ 5β- acids		1
	A43	Philby's rock partridge	C ₂₄ 5β- acids		1
	A44	Chestnut-bellied partridge	C ₂₄ 5β- acids		1
	A45	Himalayam snow cock	C ₂₄ 5β- , 5α- acids;		1,38A
	A46	Malay great argus	C ₂₄ 5β- acids		1
	A47	Golden pheasant	C ₂₄ 5β- acids		1
	A48	Himalayan monal pheasant	C ₂₄ 5β- acids		1,28
	A49	Bulwer's wattled pheasant	C ₂₄ 5β- acids		1
	A50	Malay crestless fireback pheasant	C ₂₄ 5β- acids		1
	A51	Rothschild's peacock pheasant	C ₂₄ 5β- acids		1
	A52	Blue-eared pheasant	C ₂₄ 5β- acids		1
	A53	Elliott's pheasant Blue-eared pheasant	C ₂₄ 5β- acids		
	A54	Cabot's tragopan	C ₂₄ 5β- acids		1,28
	A55	Temminck's tragopan	C ₂₄ 5β- acids		1,29
Pavoninae	A56	Green peafowl	C ₂₄ 5β- acids		1
	A57	Indian peafowl	C ₂₄ 5β- acids		1
Accipitriformes					
Accipitridae	A58	Wedge-tailed eagle	C ₂₄ 5β- acids		1,11
	A59	Verreaux's eagle	C ₂₄ 5β- acids		1,9
	A60	Northern bald eagle	C ₂₄ 5β- acids		1,9
Cathartidae	A61	Andean condor	C ₂₇ 5β- acids	AO, others	
	A62	California condor	C ₂₄ 5β- acids		32
	A63	Black vulture	C ₂₄ 5β- acids		32
	A64	King vulture	C ₂₄ 5β- acids		1
	A65	Cinereus vulture	C ₂₄ 5β- acids		1,9
Pandionidae	A66	Osprey	C ₂₄ 5β- , 5α- acids;		1,9,38A
Sagittariidae	A67	Secretary bird	C ₂₄ 5β- , 5α- acids;		1,9,38A
Charadiiformes					

Alcidae	A68	Common murre	C ₂₄ 5β- acids	1,9
	A69	Tufted puffin	C ₂₄ 5β- acids	9
Glareolidae	A70	Collared pratincole	C ₂₄ 5β- acids	1,9,32
Laridae	A71	Common brown noddy	C ₂₄ 5β- acids	1,32
	A72	Inca tern	C ₂₄ 5β- acids	1,9,32
	A73	Wyman's Western gull	C ₂₄ 5β- acids	9
Jacanidae	A74	African jacana	C ₂₄ 5β- acids	1
Rostratulidae	A75	Painted snipe	C ₂₄ 5β- acids	1,9
Burhinidae	A76	Australian stone curlew	C ₂₄ 5β- acids	1,9,14
Charadriidae	A77	Ethiopian crowned plover	C ₂₄ 5β- acids	1,31
	A78	New Guinea masked plover	C ₂₄ 5β- acids	1,31
	A79	Red-wattled lapwing	C ₂₄ 5β- acids	1,9

Chionididae	A80	Snowy sheathbill	C ₂₄ 5β- acids		1,9,14
Recurvirostridae	A81	American avocet	C ₂₄ 5β- acids		1,9
	A82	Pied avocet	C ₂₄ 5β- , 5α- acids;		1,9,38A
	A83	Black-neck stilt	C ₂₄ 5β- acids		9
Ciconiiformes			C ₂₄ 5β- acids		
Ardeidae	A84	Black-headed heron	C ₂₄ 5β- acids		1,32
	A85	Indian pond heron	C ₂₄ 5β- acids		1,32
	A86	Black heron	C ₂₄ 5β- acids		1,32
	A87	Southern whistling heron	C ₂₄ 5β- acids		32
	Balaenicipitae	A88	Shoebill stork	C ₂₄ 5β- acids	
Ciconiidae	A89	African open-billed stork	C ₂₄ 5β- acids		1,9
	A90	Abdim's stork	C ₂₄ 5β- acids		1,9
	A91	Maguari stork	C ₂₄ 5β- acids		1,9, others
	A92	Black stork	C ₂₄ 5β- acids		1,9
	A93	Storm's stork	C ₂₄ 5β- acids		1,9
	A94	Saddle-bill stork	C ₂₄ 5β- acids		1,9
Phoenicopteridae	A95	Greater flamingo	C ₂₄ 5β- acids		1,5
	A96	Chilean flamingo	C ₂₄ 5β- acids		1,5
	A97	Lesser flamingo	C ₂₄ 5β- acids		1,5
Scopidae	A98	Eastern hamercop	C ₂₄ 5β- acids		1, others

Threskionithidae	A99	Waldrapp ibis	C ₂₄ 5β- acids		1,9
	A100	African spoonbill	C ₂₄ 5β- acids		1,9
	A101	Yellow-billed spoonbill	C ₂₄ 5β- acids		1
	A102	Black-faced ibis	C ₂₄ 5β- acids		1,9
	A103	Sacred ibis	C ₂₄ 5β- acids		1
Columbiformes					
Columbidae	A104	Black-backed fruit dove	C ₂₄ 5β- acids		1
	A105	Vogelkop coronated fruit dove	C ₂₄ 5β- acids		1
	A106	Orange-bellied fruit dove	C ₂₄ 5β- acids		1,9
	A107	Jambu fruit dove	C ₂₄ 5β- acids		1
	A108	Black-chinned fruit dove	C ₂₄ 5β- acids		1
	A109	Wompoo fruit dove	C ₂₄ 5β- acids		1,28
	A110	Northern magnificent fruit dove	C ₂₄ 5β- acids		1,
	A111	Marche's fruit dove	C ₂₄ 5β- acids		1,28
	A112	Black-naped fruit dove	C ₂₄ 5β- acids		1
	A113	Merrill's fruit dove	C ₂₄ 5β- acids		1,28
	A114	Yellow-breasted fruit dove	C ₂₄ 5β- acids		1,
	A115	Ornate fruit dove	C ₂₄ 5β- acids		1,9
	A116	Pink-spotted fruit dove	C ₂₄ 5β- acids		1,9
	A117	Superb fruit dove	C ₂₄ 5β- acids		1
	A118	Beautiful fruit dove	C ₂₄ 5β- acids		1
	A119	Spotted imperial pigeon	C ₂₄ 5β- acids		1,28
	A120	Maroon-naped imperial pigeon	C ₂₄ 5β- acids		1
	A121	Pied imperial pigeon	C ₂₄ 5β- acids		1

Columbidae	A122	Purple tail imperial pigeon	C ₂₄ 5β- acids		1
	A123	Zoe imperial pigeon	C ₂₄ 5β- acids		1
	A124	Gray imperial pigeon	C ₂₄ 5β- acids		1,9
	A125	Green imperial pigeon	C ₂₄ 5β- acids		1
	A126	Nutmeg pigeon	C ₂₄ 5β- acids		1
	A127	Papuan mountain pigeon	C ₂₄ 5β- acids		1
	A128	West African green pigeon	C ₂₄ 5β- acids		1
	A129	Flores dark-back pigeon	C ₂₄ 5β- acids		1
	A130	Green-napes pheasant pigeon	C ₂₄ 5β- acids		1
	A131	Celebes quail dove	C ₂₄ 5β- acids		1
	A132	Luzon bleeding heart dove	C ₂₄ 5β- acids		1
	A133	Green-wing dove	C ₂₄ 5β- acids		1
	A134	White-headed pigeon	C ₂₄ 5β- acids		1
Pteroclididae	A135	Chestnut-bellied sandgrouse	C ₂₄ 5β- acids		1,9
Coraciiformes					
Bucerotidae	A136	Tarictic hornbill	C ₂₇ 5β- acids	AO	
	A137	Great hornbill	C ₂₇ 5β- acids	AO, others	

Coraciidae	A138	Racket-tailed roller	C ₂₇ 5β- acids	AQ, others	
	A139	Blue-bellied roller	C ₂₇ 5β- acids	AQ	
	A140	Northern rufous-crowned roller	C ₂₇ 5β- acids	AQ	
	A141	Broadbill roller	C ₂₇ 5β- acids	AQ, others	
Halcyonidae	A142	Micronesian kingfisher	C ₂₇ , C ₂₄ acids	NA	NA
Meropidae	A143	White-fronted bee-eater	C ₂₇ 5β- acids	NA	
	A144	Northern carmine bee-eater	C ₂₇ 5β- acids	NA	
Falconiformes					
Falconidae	A145	Northern apolomado falcon	C ₂₄ 5β- acids		1,32
	A146	Gyrfalcon	C ₂₄ 5β- acids		32
	A147	Crested cara cara	C ₂₄ 5β- acids		32
Gaviformes					
Gaviidae	A148	Red throated loon	C ₂₄ 5β- , 5α- acids		1,9,32,40A
Gruiformes					
Eurypygidae	A149	Sun bittern			1
Gruidae	A150	Sandhill crane	C ₂₄ 5β- acids		1
	A151	Japanese crane	C ₂₄ 5β- acids		1,9
	A152	Stanley crane	C ₂₄ 5β- acids		1,9
Psophiidae	A153	Grey-wing trumpeter	C ₂₄ 5β- acids		1,28

Otididae	A154	Great bustard	C ₂₄ 5β- , 5α- acids		1,38A, others
Rallidae	A155	American coot	C ₂₄ 5β- acids		1
Rhynochetidae	A156	Kagu	C ₂₄ 5β- acids		1, others
Musophagiformes					
Musophagidae	A157	Great blue turaco	C ₂₇ alcohols, C ₂₇ acids, C ₂₄ acids	NA	NA
	A158	Western grey plantain eater	C ₂₇ alcohols, C ₂₇ acids,	NA	
	A159	Violet plantain eater	C ₂₇ acids	NA	
	A160	Livingston's turaco	C ₂₇ alcohols, C ₂₇ acids,	NA	
	A161	Violet plantain eater	C ₂₇ acids	NA	
Pelecaniformes					
Anhingidae	A162	African darter	C ₂₄ 5β- acids		1,9
Fregiatidae	A163	Greater frigate bird	C ₂₄ 5β- acids		1

Pelecanidae	A164	Australian pelican	C ₂₄ 5β- acids		1,32,others
	A165	Eastern brown pelican	C ₂₄ 5β- acids		1,32
	A166	Pink-back pelican	C ₂₄ 5β- acids		1,32
	A167	Dalmatian pelican	C ₂₄ 5β- acids		1,9
Phalacrocoracidae	A168	Little pied cormorant	C ₂₄ 5β- acids		1
	A169	Great cormorant	C ₂₄ 5β- acids		1,9
Sulidae	A170	Northern gannet	C ₂₄ 5β- acids		1,9
	A171	Blue-footed booby	C ₂₄ 5β- acids		1,9
Piciformes					
Capitonidae	A172	Black spotted barbet	C ₂₇ alcohols, C ₂₇ acids, C ₂₄ acids	NA	NA
Lybiidae	A173	White-eared barbet	C ₂₇ acids	NA	
	A174	Boehm's barbet	C ₂₄ 5β- acids		1
	A175	Yellow-fronted tinkerbird	C ₂₄ 5β- acids		1,9
	A176	Tanzanian white-bearded barbet	C ₂₄ 5β- acids		1, other
Megalamidae	A177	Phillipine coppersmith barbet	C ₂₄ 5β- acids		NA
	A178	Fire-tufted barbet	C ₂₄ 5β- acids		1
Ramphastidae	A179	Plate-billed mountain toucan	C ₂₄ 5β- acids		1
	A180	Ariel toucan	C ₂₇ , C ₂₄ 5β- acids	K, others	1
	A181	Green-billed toucan	C ₂₇ , C ₂₄ 5β- acids	K, others	1
	A182	Green aracari	C ₂₇ , C ₂₄ 5β- acids	K	1
	A183	Carl-crested aracari	C ₂₄ acids		1
	A184	Eastern red-necked aracari	C ₂₄ 5β- acids		NA
Picidae	A185	Golden-backed woodpecker	C ₂₄ 5β- acids		NA
	A186	Fulvous-breasted woodpecker	C ₂₇ acids	NA	
Podicipediformes					
Podicipedidae	A187	Antarctic prion	C ₂₄ 5β- acids		1,32
Procellariiformes					
Procellaridae	A188	Southern giant petrel	C ₂₄ 5β- acids		1,9,32

Psittaciformes				
Cacatuidae	A189	Cockatiel	C ₂₄ 5β- acids	1,9
	A190	Western Red-tailed black cockatoo	C ₂₄ 5β- , 5α- acids	1,38A
	A191	Eastern rose-breasted cockatoo	C ₂₄ 5β- acids	NA
Psittadae	A192	Eastern Josephine's lorry	C ₂₄ 5β- acids	others
	A193	Blue-crowned lory	C ₂₄ 5β- acids	NA
	A194	Cuban amazon	C ₂₄ 5β- acids	1,9,32
	A195	Golden conure	C ₂₄ 5β- acids	NA
	A196	Black-hooded parakeet	C ₂₄ 5β- acids	NA
Sphenisciformes				
Spheniscidae	A197	King penguin	C ₂₄ 5β- acids	1,9,32
	A198	Emperor penguin	C ₂₄ 5β- acids	9,32
	A199	Cape penguin	C ₂₄ 5β- acids	32, other
	A200	Adele penguin	C ₂₄ 5β- acids	1,9
	A201	Chinstrap penguin	C ₂₄ 5β- acids	1,9,14
	A202	Gentoo penguin	C ₂₄ 5β- acids	1,9
	A203	Humboldt penguin	C ₂₄ 5β- acids	32,36
	A204	Rockhopper penguin	C ₂₄ 5β- acids	1,9,32

Strigiformes					
Tytonidae	A205	Thailand bay owl	C ₂₄ 5β- acids		1,32
	A206	Barn owl	C ₂₄ 5β- acids		1,32
Strigidae	A207	Western burrowing owl	C ₂₄ 5β- acids		others
	A208	Great horned owl	C ₂₄ 5β- acids		1
	A209	Elf owl	C ₂₄ 5β- acids		1,9
	A210	Grant's white-faced scopes owl	C ₂₄ 5β- acids		1,9
Trogoniformes	A211	Macklot's blue-tailed trogon	C ₂₇ alcohols, C ₂₄ acids,	NA	1,9
Upupiformes					
Upipidae	A212	Siberian hoopee	C ₂₄ 5β- acids		9
Passeriformes					
Campephagidae	A213	Fukien scarlet minivet	C ₂₄ 5β- acids		1,32
Chloropscidae	A214	Blue-winged leafbird	C ₂₄ 5β- acids		32
	A215	Orange-bellied leafbird	C ₂₄ 5β- acids		1,32
Corvidae	A216	Hawaiian crow	C ₂₇ alcohols, C ₂₄ acids	NA	32
	A217	Azure-winged magpie	C ₂₄ 5β- acids		1,32
	A218	Northern spotted nutcracker	C ₂₇ alcohols, C ₂₇ acids, C ₂₄ acids	NA	NA
Cotingidae	A219	Capuchin bird	C ₂₇ acids	I, others	
	A220	Barre-throated bellbird	C ₂₇ acids	I, others	
	A221	Guianian cock of the rock	C ₂₇ alcohols, C ₂₇ acids	NA	
	A222	Pompadour cotinga	C ₂₇ acids	NA	

Emberizidae	A223	Southern painted bunting	C ₂₄ 5β- acids		NA
	A224	Yellow-faced grassquit	C ₂₄ 5β- acids		NA
Estrildidae	A225	Delamere's black-cheeked waxbill	C ₂₄ 5β- acids		NA
	A226	Peale's parrot-finch	C ₂₄ 5β- acids		NA
Eurylaimidae	A227	Black and yellow broadbill	C ₂₄ 5β- acids		1,5
	A228	Northern long-tailed broad bill	C ₂₄ 5β- acids		5,9
	A229	Southern long-tailed broadbill	C ₂₇ 5β- acids	NA	
	A230	Northern lesser green broadbill	C ₂₇ 5β- acids	NA	
Fringillidae	A231	Canary	C ₂₄ 5β- acids		1,32
	A232	Golden-browed chlorophonia	C ₂₄ 5β- acids		1,32,33
Icteridae	A233	Surinam crested oropendola	C ₂₄ 5β- acids		1,32
	A234	Chestnut-headed oropendola	C ₂₄ 5β- acids		32
	A235	Orange-bellied leafbird	C ₂₄ 5β- acids		1,32
Irenidae	A236	Long-crested helmet shrike	C ₂₇ -, C ₂₄ 5β- acids	NA	32
Laniidae	A237	Blue-faced honey eater	C ₂₄ 5α-, 5β- acids		9, 38A
Meliphagidae	A238	White-rumped shama	C ₂₄ 5α-, 5β- acids		1,9,38A
Muscicapidae	A239	Snowy-capped robinchat	C ₂₄ 5β- acids		1,32
	A240	Fukien naltava	C ₂₄ 5β- acids		1,32,33
	A241	Hawaiian solitaire	C ₂₄ 5β- acids		1,9
	A242	Blue-fronted redstart	C ₂₄ 5β- acids		1,32
	A243	Chinese narcissus flycatcher	C ₂₄ - acids		NA
	A244	Ribbon-tailed bird of paradise	C ₂₄ 5β- acids		1,32
Paradisaeidae	A245	Finsch's bird of paradise	C ₂₄ 5β- acids		32
	A246	Blue manakin	C ₂₄ 5α-, 5β- acids		1,37A
Pipridae	A247	Southern long-tailed manakin	C ₂₇ , C ₂₄ 5β- acids	NA	1,9
	A248	Guianian white-bearded manakin	C ₂₇ -, C ₂₄ - acids	NA	NA
Plocidae	A249	Northern white-headed buffalo weaver	C ₂₇ , C ₂₄ 5β- acids	NA	9
	A250	Taveta golden weaver	C ₂₄ 5β- acids		NA
Ptilonorhynchidae	A251	Javan ruby-throated bulbul	C ₂₄ 5β- acids		1,32

Sittidae	A252	Western Eurasian nuthatch	C ₂₄ 5β- acids	1,32,other
Sturnidae	A253	New Guinea metallic starling	C ₂₄ 5β- acids	1,9
	A254	Sulawesi mynah	C ₂₄ 5β- acids	1,9
	A255	New Guinea yellow-faced mynah	C ₂₄ 5β- acids	1
	A256	Amethyst starling	C ₂₄ 5β- acids	1
	A257	Long-tailed glossy starling	C ₂₄ 5β- , 5α- acids	1,38A
	A258	Hildebrandt's starling	C ₂₄ 5β- acids	1,32
Thraupidae	A259	Northern blue dacnis	C ₂₄ 5β- acids	1
	A260	Black-chinned mountain tanager	C ₂₄ 5β- acids	1,32
	A261	Western blue-grey tanager	C ₂₄ 5β- acids	1
	A262	Costa Rican bay-headed tanager	C ₂₄ 5β- acids	1 ,32
	A263	Golden hooded tanager	C ₂₄ 5β- acids	1,32, other
Timliixs	A264	Yellow throated laughing thrush	C ₂₄ 5β-, 5α- acids	1,5,37A
	A265	Hwamei	C ₂₄ 5β- acids	1,9
	A266	Black-throated laughing thrush	C ₂₄ 5β- acids	1,5
	A267	White crested laughing thrush	C ₂₄ 5β- acids	1,32
	A268	Greater necklaced laughing thrush	C ₂₄ 5β- acids	5
	A269	Taiwan yuhina	C ₂₄ 5β- acids	1,32
Turdidae	A270	Small Kauai thrush	C ₂₄ 5β- acids	1,32
	A271	Tatar robin	C ₂₄ 5β- acids	NA
	A272	Small Kauai thrush	C ₂₄ 5β- acids	NA

Table 10s Bile salts of mammals					
Phylogeny	SN	Species	Bile salt species	C₂₇ alcohols and C₂₇ acids	C₂₄ acids
PROTHERIA					
Platypoda	M1	Duck-billed platypus	C ₂₄ 5β- acids		9
Tachyglossa	M2	Short-nosed echidna	C ₂₄ 5β- acids		9
METATHERIA (marsupials)					
Didelimorphia	M3	North American opossum	C ₂₄ 5β- acids		1,9
Dasyuromorphia	M4	Kowari	C ₂₄ 5β- acids		9, others
	M5	Spotted-tail quoll	C ₂₄ 5β- ,5α acids		1, 38A
	M6	Fat-tailed dunnart	C ₂₄ 5β- acids		9
Diprotodontia	M7	Feather-tailed glider	C ₂₄ 5β- acids		9,27
	M8	Doria's tree kangaroo	C ₂₄ 5β- acids		9,14
	M9	Eastern red kangaroo	C ₂₄ 5β- acids		1,9,14
	M10	Banded hare wallaby	C ₂₄ 5β- acids		9,14
	M11	Bennett's wallaby	C ₂₄ 5β- acids		1,9,14
	M12	Dusky pademelon	C ₂₄ 5β- acids		1,9,14
	M14	South Eastern spotted cuscus	C ₂₄ 5β- ,5α acids		1,27, 37A
	M15	Queensland koala	C ₂₄ 5β- acids		2
	M16	Common wombat	C ₂₄ 5β- acids		1,8, others
EUTHERIA (placentals)					
Pilosa	M17	Brown-throated three toed sloth	C ₂₄ 5β- acids		1,10
	M18	Tamandua (lesser anteater)	C ₂₄ 5β- acids		1,9,14
Afrotheria					
Proboscidea	M19	Asian elephant	C ₂₇ alcohols	Hexols, pentols	
Sirenia	M20	Caribbean manatee	C ₂₇ alcohols	IX,XXI,XXII	
	M21	Amazon manatee	C ₂₇ alcohols	Tetrols, pentols	
	M22	West Indian manatee	C ₂₇ alcohols	Tetrols, pentols	
(Afrotheria)					

Hyracoidea	M23	Rock hyrax	C ₂₇ alcohols	Pentols	
Afrosoricida	2M4	Small Madagascar tenrec	C ₂₄ 5β- acids		9
	M25	Streaked tenrec	C ₂₇ alcohols ,C ₂₄ 5β- acids	NA	1,9
Tubulidentata	M26	South American aardvark	C ₂₄ 5β- acids		1,9,14
Scandentia	M27	Tree shrew	C ₂₄ 5β- acids		1,9
	M27	Long-nosed tree shrew	C ₂₄ 5β- ,5α acids		1, 38A
	M29	Lesser tree shrew	C ₂₄ 5β- acids		1,9
Rodentia	M30	Syrian golden hamster	C ₂₄ 5β- acids		1,9
Muridae	M31	Cairo spiny mouse	C ₂₄ 5β- acids		9
	M32	South Eastern Asian house mouse	C ₂₄ 5β- acids		9,19,20
	M33	African pygmy mouse	C ₂₄ 5β- acids		1,20
Sciuridae	M34	Bornean prevost squirrel	C ₂₄ 5β- ,5α acids		9,38A,others
	M35	Fox squirrel	C ₂₄ 5β- acids		1
	M36	Thirteen-lined ground squirrel	C ₂₄ 5β- ,5α acids		9,38A
Castoridae	M37	North American beaver	C ₂₄ 5β- acids		1,17
Capromyidae	M38	Jamaican hutia	C ₂₄ 5β- acids		9,10
	M39	Bahamian hutia	C ₂₄ 5β- acids		2,9,10
	M40	Rock cavy	C ₂₄ 5β- acids		2,17
Dasyproctidae	M41	Orange-rumped agouti	C ₂₄ 5β- acids		4,17
	M42	Central American agouti	C ₂₄ 5β- acids		4,17
Hydrochoeridae	M43	Capybara	C ₂₄ 5β- acids		1,17
Lagomorpha	M44	Brush rabbit	C ₂₄ 5β- acids		14
	M45	Domestic rabbit	C ₂₄ 5β- acids		14
Eulipotyphla	M46	Central African hedgehog	C ₂₄ 5β- acids		1,9

Chiroptera					
Desmodonidae	M47	Common vampire bat	C ₂₄ 5β- acids		9
	M48	Little brown myotis	C ₂₄ 5β- acids		9
Perissodactyla					

Rhinocerotidae	M49	Black rhinoceros	C ₂₇ alcohols	VI	
Tapiridae	M50	Baird's tapir	C ₂₄ 5β- acids		1,9,14
Equidae	M51	Domestic horse	C ₂₇ acids, C ₂₄ acids	NA	1
	M52	Damara zebra	C ₂₄ 5β- acids		NA
Carnivora					
Mustelidae	M53	Gray-headed tayra	C ₂₄ 5β- acids		9
	M54	Verney's ratel	C ₂₄ 5β- acids		9
	M55	Northern European mink	C ₂₄ 5β- acids		9
	M56	Steppe polecat	C ₂₄ 5β- acids		9
Lutrinae	M57	Eurasian otter	C ₂₄ 5β- acids		1,9
	M58	South American otter	C ₂₄ 5β- acids		1,9
	M59	Spotted-neck otter	C ₂₄ 5β- acids		9
	M60	Small-claw otter	C ₂₄ 5β- acids		1,9
	M61	Sea otter	C ₂₄ 5β- acids		9
	M62	Siberian yellow-throated marten	C ₂₄ 5β- acids		9
Procyonidae	M63	Arizona cacomistle	C ₂₄ 5β- acids		1,9
	M64	Yucatan white-nosed coatimundi	C ₂₄ 5β- acids		9,14
Mephitidae	M65	Striped skunk	C ₂₄ 5β- acids		9
	M66	Red panda	C ₂₄ 5β- acids		9

Pinnipedia				
Phocidae	M67	Harbor seal	C ₂₄ 5β- acids	5,9,14
	M68	Ringed seal	C ₂₄ 5β- acids	5,9
Otariidae	M69	Northern elephant seal	C ₂₄ 5β- acids	1,5,15
Odobenidae	M70	Atlantic walrus	C ₂₄ 5β- acids	5,9,14
	M71	Pacific walrus	C ₂₄ 5β- acids	5,9,14
Ursidae	M72	Asiatic black bear	C ₂₄ 5β- acids	1,9,17
	M73	Polar bear	C ₂₄ 5β- acids	1,9,17
	M74	Black bear	C ₂₄ 5β- acids	1,9,17
	M75	Brown bear	C ₂₄ 5β- acids	1,9,17
	M76	Sun bear	C ₂₄ 5β- acids	1,9
	M77	Sloth bear	C ₂₄ 5β- acids	1,9
	M78	Spectacled bear	C ₂₄ 5β- acids	1,9
	M79	Giant panda	C ₂₄ 5β- acids	1,9
	Canidae	M80	Arctic fox	C ₂₄ 5β- acids
M81		Chinese dhole	C ₂₄ 5β- acids	1,9,14
Felidae	M82	Gordon's wildcat	C ₂₄ 5β- acids	1,9
	M83	Arabian wildcat	C ₂₄ 5β- acids	1,9,14
	M84	Panamanian jaguarundi	C ₂₄ 5β- acids	9.
	M85	Amur leopard cat	C ₂₄ 5β- acids	9
	M86	Clouded leopard	C ₂₄ 5β- acids	9
	M87	Persian leopard	C ₂₄ 5β- acids	9
	M88	Siberian tiger	C ₂₄ 5β- acids	9
	M89	Corbett's tiger	C ₂₄ 5β- acids	9

(Carnivora)				
Herpestidae	M90	South African banded mongoose	C ₂₄ 5β- acids	9
Viverridae	M91	South American civet	C ₂₄ 5β- acids	1,9

	M92	Banded linsang	C ₂₄ 5β- acids		9
Hyenidae	M93	Indian striped hyena	C ₂₄ 5β- acids		1,9,14
Artiodactyla					
Suidae	M94	East African warthog	C ₂₄ 5β- acids		1,9,25
	M95	Southern warthog	C ₂₄ 5β- acids		1,24,25
	M96	Red river hog	C ₂₄ 5β- acids		1,24,25, others
	M97	Central European wild boar	C ₂₄ 5β- acids		1,9,24,25
Hippopotamidae	M98	River hippopotamus	C ₂₄ 5β- acids		1,9,14
	M99	Pygmy hippopotamus	C ₂₄ 5β- acids		1,14
Cetacea					
Physeteridae	M100	Sperm whale	C ₂₄ 5β- acids		9,14
	M101	Dwarf sperm whale	C ₂₄ 5β- acids		1,14
	M102	Pygmy sperm whale	C ₂₄ 5β- acids		1,14
Delphinidae	M103	Saddleback dolphin	C ₂₄ 5β- acids		9
	M104	Northern right whale dolphin	C ₂₄ 5β- acids		9
	M105	Rough-tooth dolphin	C ₂₄ 5β- acids		9, other
Tragulidae	M106	Lesser Malay chevrotain	C ₂₄ 5β- acids		9
Moschidae	M107	Siberian musk deer	C ₂₄ 5β- acids		9,14
Cervidae	M108	British red deer	C ₂₄ 5β- acids		9
	M109	Altai wapiti	C ₂₄ 5β- acids		1,9, other
	M110	Mexican red brocket deer	C ₂₄ 5β- acids		9, other

(Perissodactyla)				
	M111	Baringo giraffe	C ₂₄ 5β- acids	1,9
Giraffidae	M112	Masai giraffe	C ₂₄ 5β- acids	9,14
	M113	Uganda giraffe	C ₂₄ 5β- acids	9,14
	M114	Okapi	C ₂₄ 5β- acids	9,14
Bovidae	M115	Indian Nilgai	C ₂₄ 5β- acids	9,14
	M116	Lowland wisent	C ₂₄ 5β- acids	1,9,14
	M117	Javan banteng	C ₂₄ 5β- acids	9,14
	M118	Lowland anoa	C ₂₄ 5β- acids	9
	M119	Eastern Giant eland	C ₂₄ 5β- acids	9
	M120	Angolan springbok	C ₂₄ 5β- acids	9,14
	M121	Roosevelt's gazelle	C ₂₄ 5β- acids	9,14
	M122	Sudan red-fronted gazelle	C ₂₄ 5β- acids	1,9,14
	M123	Sand gazelle	C ₂₄ 5β- acids	9,14
	M124	Red hartebeest	C ₂₄ 5β- acids	9
	M125	Southern gerenuk	C ₂₄ 5β- acids	1,9
	M126	Angolan roan antelope	C ₂₄ 5β- acids	9,14
	M127	South African sable antelope	C ₂₄ 5β- acids	9,14
	M128	East African oryx	C ₂₄ 5β- acids	9,14
	M129	Fringe-eared oryx	C ₂₄ 5β- acids	9,14
	M130	Cape hartebeest	C ₂₄ 5β- acids	9
	M131	Jackson's hartebeest	C ₂₄ 5β- acids	9
	M132	Brindled gnu	C ₂₄ 5β- acids	9
	M133	Jimela topi	C ₂₄ 5β- acids	9,14
	M134	Bonebok	C ₂₄ 5β- acids	1,9,14
	M135	Black-faced impala	C ₂₄ 5β- acids	9,14
	M136	South African impala	C ₂₄ 5β- acids	9

(Perissodachtyla)				
(Bovidae)	M137	Yellow-backed duiker	C ₂₄ 5β- acids	1,9,14
	M138	Masai klipspringer	C ₂₄ 5β- acids	9,14
	M139	Zulu suni	C ₂₄ 5β- acids	1,9
	M140	Kenya suni	C ₂₄ 5β- acids	9
	M141	Guenther's dik dik	C ₂₄ 5β- acids	9,14
	M142	Cavendish's dik dik	C ₂₄ 5β- acids	9,14
Primates				
Hominidae	M143	Sumatran orangutan	C ₂₄ 5β- acids	1,9,14
	M144	Human	C ₂₄ 5β- acids	1,9,14
Cercopithecidae	M145	Schmidt's spot-nosed guenon	C ₂₄ 5β- acids	9,14
	M146	Hamlyn's guenon	C ₂₄ 5β- acids	1,9,14
	M147	Debrazza's guenon	C ₂₄ 5β- acids	1,9,14
	M148	Crab-eating macaque	C ₂₄ 5β- acids	1,9,14
	M149	Pig-tailed macaque	C ₂₄ 5β- acids	1,9,14
	M150	Sulawesi crested macaque	C ₂₄ 5β- acids	1,9,14
	M151	Savannah baboon	C ₂₄ 5β- acids	1,9,14
Cebidae	M152	Red-neck douroucouli	C ₂₄ 5β- acids	1,9
	M153	Geoffrey's marmoset	C ₂₄ 5β- acids	1,9,14
	M154	Golden-lion tamarin	C ₂₄ 5β- acids	1,9
Pithecliidae	M155	Bolivian gray titi	C ₂₄ 5β- acids	1,9,14
	M156	Dusky titi	C ₂₄ 5β- acids	1,9

Atelidae	M157	Mantled howler	C ₂₄ 5β- acids		9,14
	M158	Mexican black howler	C ₂₄ 5β- acids		9,14
	M159	Humboldt's woolly monkey	C ₂₄ 5β- acids		1,9,14
	M160	Colombian brown spider monkey	C ₂₄ 5β- acids		1,9,14
Lemuridae	M161	Ring-tail lemur	C ₂₄ 5β- acids		1, others
	M162	Brown lemur	C ₂₄ 5β- acids		1, others
	M163	Collared lemur	C ₂₄ 5β- acids		1, others
	M164	Black lemur	C ₂₄ 5β- acids		1
	M165	Mongoose lemur	C ₂₄ 5β- acids		1, other
Cheirogaleidae	M166	Greater mouse lemur	C ₂₄ 5β- acids		1
	M167	Fat-tailed dwarf lemur	C ₂₄ 5β- acids		1,9
Indridae	M168	Coquerel's sifaka	C ₂₄ 5β- acids		2,17
Loridae	M169	Lesser galago	C ₂₄ 5β- acids		1,9, others
	M170	Small-eared galago	C ₂₇ acids, C ₂₄ acids	NA	1,9, others
	M171	Bengal slow loris	C ₂₇ acids, C ₂₄ acids	R	9,14
Tarsiformes	M172	Philippine tarsier	C ₂₄ 5β- acids		9

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Table 11s. Mammals whose bile salts contain > 50% deoxycholic acid, a secondary bile acid formed by bacterial 7 α -dehydroxylation of cholic acid

Species	Order	Deoxycholic acid, %
Domestic rabbit	Lagomorpha	88
Sperm whale	Cetacea	79
Pigtailed macaque	Primate	69
Debrazza's guenon	Primate	67
Mexican black howler	Primate	65
Pygmy sperm whale	Cetacea	61
Savannah baboon	Primate	58
Geoffrey's marmoset	Primate	56
Banded hare wallaby	Marsupial	56
Brush rabbit	Lagomorpha	55
Pacific walrus	Pinnipedia	53
Indian striped hyena	Carnivora	52
Okapi	Artiodactyla	52