

Black is f/Paleobiology;Brown is f/Benton;green f/Zhoa;blue f/Sepkoski;purple f/fossilworks

8	Casea	Leonard	290.1	268	KUN(u)	KUN(u)	275.8	272.3	
8	Oromycter	Leonard	290.1	268	KUN(u)	KUN(u)	275.8	272.3	
8	Mycterosaurus	Artinskian	Kunguriar	290.1	272.3	ASS(l)	KUN(l)	298.9	275.8
7	Orovenator	Leonard	290.1	268	KUN(u)	KUN(u)	275.8	272.3	
6	Cacops	Leonard	290.1	268	KUN(u)		275.8	272.3	
6	Doleserpeton	Leonard	290.1	268	KUN(u)		275.8	272.3	
6	Perryella	Leonard	290.1	268	KUN(l)		279.3	275.8	
6	Bolterpeton	Leonard	290.1	268	KUN(u)		275.8	272.3	
6	Llistrofus	Leonard	290.1	268	KUN(u)		275.8	272.3	
6	Nannaroter	Leonard	290.1	268	KUN(u)		275.8	272.3	
6	Sillerpeton	Leonard	290.1	268	KUN(u)		275.8	272.3	
7	Baeotherates	Leonard	290.1	268	KUN(u)	KUN(u)	275.8	272.3	
7	Captorhinikos	Leonard	290.1	268	KUN(u)	KUN(u)	275.8	272.3	
7	Colobomycter	Leonard	290.1	268	KUN(u)	KUN(u)	275.8	272.3	
7	Labidosaurikos	Leonard	290.1	268	KUN(u)	KUN(u)	275.8	272.3	
7	Labidosaurus	Leonard	290.1	268	KUN(u)	KUN(u)	275.8	272.3	
7	Microleter	Leonard	290.1	268	KUN(u)	KUN(u)	275.8	272.3	
8	Euromycter	Sakmarian	Wuchiapii	295.5	254.2	SAK(u)	KUN(u)	292.8	272.3
8	Ruthenosaurus	Sakmarian	Wuchiapii	295.5	254.2	SAK(u)	KUN(u)	292.8	272.3
8	Apsisaurus	Wolfcamp	296.4	268	SAK(l)	SAK(u)	295.5	290.1	
8	Stereophallodon	Wolfcamp	296.4	268	ASS(l)	ASS(u)	298.9	295.5	
7	Zarcasaurus	Wolfcamp	296.4	268	ASS(l)	ASS(l)	298.9	297.2	
6	Pasawioops	Wolfcamp	296.4	268	KUN(u)		275.8	272.3	
6	Ecolsonia	Wolfcamp	296.4	268	ASS(l)	ASS(u)	298.9	295.5	
6	Tseajaia	Wolfcamp	296.4	268	ASS(u)		297.2	272.3	
6	Stegotretus	Wolfcamp	296.4	268	ASS(l)		298.9	297.2	
7	Rhiodenticulatus	Wolfcamp	296.4	268	ASS(l)	ASS(u)	298.9	295.5	
6	Dissorophus	Cisuralian	298.9	272.3	SAK(u)	KUN(u)	292.8	272.3	
6	Neldasaurus	Asselian	Kunguriar	298.9	272.3	SAK(l)		295.5	292.8
6	Utegenia	Asselian	Kunguriar	298.9	272.3	GZE	ASS(u)	303.7	295.5
6	Ariekanerpeton	Rotliegendes	298.9	254	ASS(l)	SAK(l)	298.9	292.8	
8	Oedaleops	Virgilian	Wolfcamp	303.4	268	ASS(l)	ASS(l)	298.9	297.2
6	Batrachiderpeton	Bashkirian	323.2	315.3	BSH(u)		319.2	315.2	
6	Pteroplax	Bashkirian	323.2	315.2	BSH(u)		319.2	315.2	
6	Eobaphetes	Namurian	Westphal	326.4	307	BSH(u)		319.2	315.2
6	Adelogyrinus	Visean	346.7	330.9	VIS(u)		336.1	330.9	
6	Kirktonecta	Visean	346.7	330.9	VIS(u)		336.1	330.9	
6	Eldeceeon	Visean	346.7	330.9	VIS(u)		336.1	330.9	
6	Pholidogaster	Visean	346.7	330.9	VIS(u)		336.1	330.9	
6	Eucritta	Visean	346.7	330.9	VIS(u)		336.1	330.9	
6	Palaeomolgophis	Visean	346.7	330.9	VIS(m)		341.5	336.1	
6	Dolichopareias	Tournaisian-NO	358.9	346.7	VIS(u)		336.1	330.9	
6	Occidens	Tournaisian	Visean	358.9	330.9	TOU(u)		352.8	346.7
3	Bothriolepis	Frasnian	382.7	372.2	Emsian Late		402.5	391.9	
5	Chirodipterus	Middle Devonian	393.3	382.7	Frasnian		382.7	372.2	
5	Sorbitorhynchus	Late Emsian	402.5	391.9	Emsian, Early		407.6	402.5	
5	Tarachomyxax	Emsian	407.6	393.3	Emsian, Late		402.5	391.9	
5	Erikiia	Emsian	407.6	393.3	Emsian, Early		407.6	402.5	
3	Machaeracanthus	Early Emsian	409.1	402.5	Pragian		410.8	407.6	
3	Cheiracanthoides	Early Emsian	409.1	402.5	Lochkovian		419.2	410.8	
5	Styloichthys	Lochkovian	419.2	410.8	Lochkovian, Mid-Late		416.4	410.8	

3	Phymolepis	Lochkovian	419.2	410.8	Lochkovian, Mid-Late	416.4	410.8
2	Cyclodiscaspis	Lochkovian	419.2	410.8	Lochkovian, Mid-Late	416.4	410.8
2	Hyperaspis	Lochkovian	419.2	410.8	Lochkovian, Mid-Late	416.4	410.8
2	Nanpanaspis	Lochkovian	419.2	410.8	Lochkovian, Mid-Late	416.4	410.8
2	Siyingia	Lochkovian	419.2	410.8	Lochkovian, Mid-Late	416.4	410.8
2	Damaspis	Lochkovian	419.2	410.8	Lochkovian, Early	419.2	416.4
2	Diandongaspis	Lochkovian	419.2	410.8	Lochkovian, Early	419.2	416.4
2	Dongfangaspis	Lochkovian	419.2	410.8	Lochkovian, Early	419.2	416.4
2	Laxaspis	Lochkovian	419.2	410.8	Lochkovian, Early	419.2	416.4
2	Nochelaspis	Lochkovian	419.2	410.8	Lochkovian, Early	419.2	416.4
2	Pentathyraspis	Lochkovian	419.2	410.8	Lochkovian, Early	419.2	416.4
2	Stephaspis	Lochkovian	419.2	410.8	Lochkovian, Early	419.2	416.4
2	Yunnanogaleaspis	Lochkovian	419.2	410.8	Lochkovian, Early	419.2	416.4
5	Psarolepis	Pridoli	423	419.2	Pridoli	423	419.2
3	Gomphonchus	Ludfordian	425.6	423	Ludfordian, Late	424.3	423
3	Hanilepis	Ludfordian	425.6	423	Ludfordian, Late	424.3	423
3	Poracanthodes	Ludfordian	425.6	423	Ludfordian, Late	424.3	423
3	Ischnacanthus	Ludfordian	425.6	423	Homerian	430.5	427.4
3	Elegestolepis	Ludlow Pridoli	427.4	419.2	Telychian, Mid	436.8	435.1
2	Eugaleaspis	Homerian	430.5	427.4	Telychian, Late	435.1	433.4
2	Sinogaleaspis	Sheinwoodian	433.4	430.5	Telychian, Late	435.1	433.4
2	Xiushuiaspis	Sheinwoodian	433.4	430.5	Telychian, Late	435.1	433.4
2	Changxingaspis	Sheinwoodian	433.4	430.5	Telychian, Late	438.5	433.4
2	Meishanaspis	Sheinwoodian	433.4	430.5	Telychian, Late	438.5	433.4
2	Geraspis	Sheinwoodian	433.4	430.5	Telychian, Mid	436.8	435.1
2	Pseudoduyunaspis	Telychian	438.5	433.4	Telychian, Mid	436.8	435.1
2	Hanyangaspis	Telychian	438.5	433.4	Telychian, Early	438.5	435.1
2	Kalpinolepis	Telychian	438.5	433.4	Telychian, Early	438.5	435.1
1	Yaoxianognathus				Katian	453	445.2
1	Costiconus				Floian	477.7	470
1	Erraticodon				Floian	477.7	470
1	Jumudontus				Cassinian	478.6	468.1
1	Oulodus				Dawan	478.6	468.1
1	Walliserodus				Dawan	478.6	468.1
1	Stolodus				Blackhillsian	478.6	471.8
2	Pycnaspis				Caradocian, Mid	457.1	453.3
2	Poriferaspis				Llanvirn, Early	466	463.5
2	Palaeodus				Arenigian	478.6	466
3	Doliodus				Ludlow, Late	425.2	423
5	Griphognathus				Frasnian	382.7	372.2
5	Holodipterus				Frasnian	382.7	372.2
5	Holopterygius				Frasnian	382.7	372.2
5	Nesides				Frasnian	382.7	372.2
5	Diplocercides				Frasnian, Mid	382.4	376.1
5	Latvius				Frasnian, Early	383.7	382.4
5	Pillararhynchus				Frasnian, Early	383.7	382.4
5	Euporosteus				Givetian	387.7	382.7
5	Canningius				Devonian, Mid	393.3	382.7
5	Devonosteus				Devonian, Mid	393.3	382.7
5	Hamodus				Devonian, Mid	393.3	382.7
5	Strunius				Devonian, Mid	393.3	382.7
5	Gyroptychius				Eifelian, Early	393.3	391.4

5	Sponysedrion	Emsian, Early	409.1	402.5
5	Powichthys	Lochkovian, Late	413.6	410.8
1	Iranognathus	Changhsingian	254.2	252.17
3	Echinochimaera	Severodvinian, Early	265	252.3
6	Raphanodon	CAP(I) WUC(u)	265.1	254.2
4	Gardinerichthys	Tatarian	268	252.3
4	Korutichthys	Tatarian	268	252.3
4	Paralepidotus	Tatarian	268	252.3
4	Urostheneis	Tatarian	268	252.3
1	Caenodontus	Guadalupian, Early	272.3	266.1
1	Rabeignathus	Leonard,Late	275.4	268
1	Pavlovites	Leonard,Mid	282.7	275.4
1	Sweetocristatus	Leonard,Mid	282.7	275.4
4	Aedulla	Leonard	290.1	268
4	Burbonella	Leonard	290.1	268
4	Decazella	Leonard	290.1	268
4	Igornella	Leonard	290.1	268
4	Westollia	Leonard	290.1	268
1	Pseudosweetognathus	Leonard,Early	290.1	282.7
4	Charleuxia	Asselian	298.9	295.5
5	Synaptotylus	Stephanian, Early	307	305
3	Arpagodus	Moscovian, Late	311.1	307
3	Bebhacanthus	Moscovian, Late	311.1	307
3	Paracymatodus	Moscovian, Late	311.1	307
3	Polysentor	Moscovian, Late	311.1	307
3	Trichorhipis	Moscovian, Late	311.1	307
4	Haplolepis	Moscovian, Late	311.1	307
4	Illiniichthys	Moscovian, Late	311.1	307
4	Nozamichthys	Moscovian, Late	311.1	307
4	Palaeophichthys	Moscovian, Late	311.1	307
3	Chiastodus	Moscovian	315.2	307
1	Idiognathodus	Bashkirian, Early	323.2	319.2
3	Lestroodus	Bashkirian, Early	323.2	319.2
3	Marsdenius	Bashkirian, Early	323.2	319.2
1	Ptilognathus	Serpukhovian	330.9	323.2
4	Coccocephalichthys	Serpukhovian	330.9	323.2
1	Aethotaxis	Serpukhovian,Early	330.9	327.05
3	Heteropetalus	Serpukhovian,Early	330.9	327.05
3	Orestiacanthus	Serpukhovian,Early	330.9	327.05
1	Rhachistognathus	Visean, Late	336.2	330.9
1	Windsorgnathus	Visean, Late	336.2	330.9
3	Euglossodus	Visean, Late	336.2	330.9
3	Glyphanodus	Visean, Late	336.2	330.9
5	Coelacanthopsis	Visean, Late	336.2	330.9
4	Dwykia	Visean	346.7	330.9
4	Willomorichthys	Visean	346.7	330.9
5	Rhabdoderma	Visean	346.7	330.9
1	Capricornognathus	Visean, Early	346.7	341.4
1	Cloghergnathus	Visean, Early	346.7	341.4
1	Embaysgnathus	Visean, Early	346.7	341.4
1	Geniculatus	Visean, Early	346.7	341.4
1	Taphrognathus	Visean, Early	346.7	341.4

3	Cratoselache	Visean, Early	346.7	341.4
1	Bactrognathus	Tournaisian, Late	350.8	346.7
1	Doliognathus	Tournaisian, Late	350.8	346.7
1	Hindeodelloides	Tournaisian, Late	350.8	346.7
1	Staurognathus	Tournaisian, Late	350.8	346.7
3	Anaclitacanthus	Tournaisian, Late	350.8	346.7
3	Hybocladodus	Tournaisian, Late	350.8	346.7
3	Lambdodus	Tournaisian, Late	350.8	346.7
3	Leiodus	Tournaisian, Late	350.8	346.7
1	Scaliognathus	Ivorian	353.8	345.3
4	Brachypareion	Tournaisian	358.9	346.7
4	Cornuboniscus	Tournaisian	358.9	346.7
4	Cosmoptychius	Tournaisian	358.9	346.7
4	Drydenius	Tournaisian	358.9	346.7
4	Gonatodus	Tournaisian	358.9	346.7
4	Nematoptychius	Tournaisian	358.9	346.7
4	Paradrydenius	Tournaisian	358.9	346.7
4	Paragonatodus	Tournaisian	358.9	346.7
4	Protamblyptera	Tournaisian	358.9	346.7
4	Wardichthys	Tournaisian	358.9	346.7
4	Watsonichthyes	Tournaisian	358.9	346.7
4	Whiteichthys	Tournaisian	358.9	346.7
1	Dollymae	Tournaisian, Early	358.9	354.8
1	Nodognathus	Tournaisian, Early	358.9	354.8
1	Oligodus	Tournaisian, Early	358.9	354.8
1	Pinacognathus	Tournaisian, Early	358.9	354.8
3	Mesodmodus	Tournaisian, Early	358.9	354.8
5	Cryptolepis	Famennian, Late	364.7	360.7
1	Apatella	Famennian, Late	364.7	360.7
1	Branmehlia	Famennian, Late	364.7	360.7
1	Fungulodus	Famennian, Late	364.7	360.7
1	Hemilistrona	Famennian, Late	364.7	360.7
1	Mitrelotaxis	Famennian, Late	364.7	360.7
1	Rhodalepus	Famennian, Late	364.7	360.7
3	Bungartius	Famennian, Late	364.7	360.7
3	Cladoselache(=Cladodus)	Famennian, Late	364.7	360.7
3	Diademodus	Famennian, Late	364.7	360.7
3	Eoorodus	Famennian, Late	364.7	360.7
3	Glyptaspis	Famennian, Late	364.7	360.7
3	Gorgonichthys	Famennian, Late	364.7	360.7
3	Gymnotrachelus	Famennian, Late	364.7	360.7
3	Holdenius	Famennian, Late	364.7	360.7
3	Hussakofia	Famennian, Late	364.7	360.7
3	Mylostoma	Famennian, Late	364.7	360.7
3	Paramylostoma	Famennian, Late	364.7	360.7
3	Selenosteus	Famennian, Late	364.7	360.7
3	Siamodus	Famennian, Late	364.7	360.7
3	Trachosteus	Famennian, Late	364.7	360.7
4	Tegeolepis	Famennian, Late	364.7	360.7
5	Chrysolepis	Famennian	372.2	358.9
5	Glyptopomus	Famennian	372.2	358.9
1	Metaprioniodus	Famennian	372.2	358.9

1	Subbryantodus	Famennian	372.2	358.9
3	Africanaspis	Famennian	372.2	358.9
3	Diplognathus	Famennian	372.2	358.9
3	Monocladodus	Famennian	372.2	358.9
3	Sinolepis	Famennian	372.2	358.9
1	Hindeodina	Famennian, Mid	370.6	364.7
5	Megapomus	Famennian, Early	376.1	370.6
3	Stenosteus	Famennian, Early	376.1	370.6
3	Tafilalichthys	Famennian, Early	376.1	370.6
3	Titanichthys	Famennian, Early	376.1	370.6
2	Aspidosteus	Frasnian	382.7	372.2
3	Apateacanthus	Frasnian	382.7	372.2
3	Callognathus	Frasnian	382.7	372.2
3	Groenlandaspis	Frasnian	382.7	372.2
3	Latocamurus	Frasnian	382.7	372.2
3	Malerosteus	Frasnian	382.7	372.2
3	Megaloplax	Frasnian	382.7	372.2
3	Platyaspis	Frasnian	382.7	372.2
3	Rolfosteus	Frasnian	382.7	372.2
3	Taeniolepis	Frasnian	382.7	372.2
3	Timanosteus	Frasnian	382.7	372.2
4	Mimia	Frasnian	382.7	372.2
2	Karelosteus	Frasnian, Late	379.5	376.1
3	Aspidichthys	Frasnian, Late	379.5	376.1
3	Belosteus	Frasnian, Late	379.5	376.1
3	Brachyosteus	Frasnian, Late	379.5	376.1
3	Braunosteus	Frasnian, Late	379.5	376.1
3	Cyrtosteus	Frasnian, Late	379.5	376.1
3	Enseosteus	Frasnian, Late	379.5	376.1
3	Epipetalichthys	Frasnian, Late	379.5	376.1
3	Erromenosteus	Frasnian, Late	379.5	376.1
3	Jagorina	Frasnian, Late	379.5	376.1
3	Lepadolepis	Frasnian, Late	379.5	376.1
3	Leptosteus	Frasnian, Late	379.5	376.1
3	Microsteus	Frasnian, Late	379.5	376.1
3	Pachyosteus	Frasnian, Late	379.5	376.1
3	Parabelosteus	Frasnian, Late	379.5	376.1
3	Pholidosteus	Frasnian, Late	379.5	376.1
3	Rhinosteus	Frasnian, Late	379.5	376.1
3	Synauchenia	Frasnian, Late	379.5	376.1
3	Tapinosteus	Frasnian, Late	379.5	376.1
3	Trematosteus	Frasnian, Late	379.5	376.1
1	Ligonodina	Frasnian, Mid	382.4	376.1
1	Polygnathellus	Frasnian, Mid	382.4	376.1
3	Brachydeirus	Frasnian, Mid	382.4	376.1
3	Deveonema	Frasnian, Mid	382.4	376.1
3	Hadrosteus	Frasnian, Mid	382.4	376.1
3	Operchaliosteus	Frasnian, Mid	382.4	376.1
3	Oxyosteus	Frasnian, Mid	382.4	376.1
1	Playfordia	Frasnian, Early	383.7	382.4
3	Acmoniodus	Frasnian, Early	383.7	382.4
3	Bruntonichthys	Frasnian, Early	383.7	382.4

3	Bullerichthys	Frasnian, Early	383.7	382.4
3	Campbellodus	Frasnian, Early	383.7	382.4
3	Copanognathus	Frasnian, Early	383.7	382.4
3	Coronodus	Frasnian, Early	383.7	382.4
3	Ctenurella	Frasnian, Early	383.7	382.4
3	Denisonodus	Frasnian, Early	383.7	382.4
3	Dinomylostoma	Frasnian, Early	383.7	382.4
3	Eldenosteus	Frasnian, Early	383.7	382.4
3	Fallacosteus	Frasnian, Early	383.7	382.4
3	Gyroplacosteus	Frasnian, Early	383.7	382.4
3	Harrytoombsia	Frasnian, Early	383.7	382.4
3	Heintzichthys	Frasnian, Early	383.7	382.4
3	Incisoscutum	Frasnian, Early	383.7	382.4
3	Kendrichthys	Frasnian, Early	383.7	382.4
3	Kimberia	Frasnian, Early	383.7	382.4
3	Kimberleyichthyes	Frasnian, Early	383.7	382.4
3	Mcnamaraspis	Frasnian, Early	383.7	382.4
3	Melanosteus	Frasnian, Early	383.7	382.4
3	Persacanthus	Frasnian, Early	383.7	382.4
3	Protogonacanthus	Frasnian, Early	383.7	382.4
3	Torosteus	Frasnian, Early	383.7	382.4
3	Tubonasus	Frasnian, Early	383.7	382.4
2	Ilemoraspis	Givetian	387.7	382.7
3	Ellopetalichthys	Givetian	387.7	382.7
3	Grossaspis	Givetian	387.7	382.7
3	Rhenonema	Givetian	387.7	382.7
3	Tropidosteus	Givetian	387.7	382.7
2	Australolepis	Givetian, Late	388.1	383.7
2	Yoglinia	Givetian, Late	388.1	383.7
3	Heterosteus	Givetian, Late	388.1	383.7
3	Hollardosteus	Givetian, Late	388.1	383.7
3	Rachiosteus	Givetian, Late	388.1	383.7
3	Belemnacanthus	Devonian, Mid	393.3	382.7
3	Boliosteus	Devonian, Mid	393.3	382.7
3	Grazosteus	Devonian, Mid	393.3	382.7
3	Pseudodontichthys	Devonian, Mid	393.3	382.7
3	Squamatoagnathus	Eifelian, Late	389.6	387.7
3	Arctonema	Eifelian	393.3	387.7
3	Asterosteus	Eifelian	393.3	387.7
3	Deirosteus	Eifelian	393.3	387.7
3	Desmoporella	Eifelian	393.3	387.7
3	Eczematolepis	Eifelian	393.3	387.7
3	Goniosteus	Eifelian	393.3	387.7
3	Litilpetalichthyes	Eifelian	393.3	387.7
3	Mcmurdodus	Eifelian	393.3	387.7
3	Quasipetalichthys	Eifelian, Mid	391.4	389.6
4	Orvikuina	Eifelian	393.3	387.7
3	Macropetalichthys	Eifelian, Early	393.3	391.4
3	Palaeomylus	Eifelian, Early	393.3	391.4
3	Atlantidosteus	Emsian, Late	402.5	391.9
3	Xichonolepis	Emsian, Late	402.5	391.9
3	Arenipiscis	Emsian	407.6	393.3

3	Brindabellaspis	Emsian	407.6	393.3
3	Burrinijucosteus	Emsian	407.6	393.3
3	Errolosteus	Emsian	407.6	393.3
3	Goodradigbeeon	Emsian	407.6	393.3
3	Kolymaspis	Emsian	407.6	393.3
3	Laurentaspis	Emsian	407.6	393.3
3	Murrindalaspis	Emsian	407.6	393.3
3	Notopetalichthys	Emsian	407.6	393.3
3	Parabuchanosteus	Emsian	407.6	393.3
3	Shearsbyaspis	Emsian	407.6	393.3
3	Taemasosteus	Emsian	407.6	393.3
3	Toombsosteus	Emsian	407.6	393.3
3	Weejasperaspis	Emsian	407.6	393.3
3	Wijdeaspis	Emsian	407.6	393.3
3	Williamsaspis	Emsian	407.6	393.3
2	Clydonaspis	Emsian, Early	409.1	402.5
3	Gemuendolepis	Emsian, Early	409.1	402.5
3	Stensioella	Emsian, Early	409.1	402.5
2	Edaphaspis	Pragian, Late	409.2	407.6
2	Eglonaspis	Pragian, Late	409.2	407.6
2	Empedaspis	Pragian, Late	409.2	407.6
2	Pelaspis	Pragian, Late	409.2	407.6
3	Tiaraspis	Pragian, Late	409.2	407.6
2	Angaraspis	Pragian	410.8	407.6
2	Obliaspis	Pragian	410.8	407.6
2	Psephaspis	Pragian	410.8	407.6
2	Siberiaspis	Pragian	410.8	407.6
3	Breizosteus	Pragian	410.8	407.6
3	Kweichowlepis	Pragian	410.8	407.6
3	Murmur	Pragian	410.8	407.6
3	Taunaspis	Pragian	410.8	407.6
3	Tollodus	Pragian	410.8	407.6
3	Xinanpetalichthyes	Pragian	410.8	407.6
3	Overtonaspis	Pragian, Early	410.8	409.2
3	Prescottaspis	Pragian, Early	410.8	409.2
3	Dobrowlania	Lochkovian, Late	413.6	410.8
3	Eskimaspis	Lochkovian, Late	413.6	410.8
3	Palaeacanthaspis	Lochkovian, Late	413.6	410.8
3	Cassidiceps	Lochkovian	419.2	410.8
3	Kathemacanthus	Lochkovian	419.2	410.8
3	Kosoraspis	Lochkovian	419.2	410.8
3	Lupopsyrus	Lochkovian	419.2	410.8
3	Qujinolepis	Lochkovian	419.2	410.8
3	Radotina	Lochkovian	419.2	410.8
2	Aserotaspis	Lochkovian	419.2	410.8
2	Canadapteraspis	Lochkovian	419.2	410.8
2	Cometicercus	Lochkovian	419.2	410.8
2	Drepanolepis	Lochkovian	419.2	410.8
2	Furcacauda	Lochkovian	419.2	410.8
2	Irregulariaspis spl	Lochkovian	419.2	410.8
2	Liliaspis	Lochkovian	419.2	410.8
2	Pionaspis	Lochkovian	419.2	410.8

2	Seretaspis	Lochkovian	419.2	410.8
2	Sphenonectris	Lochkovian	419.2	410.8
3	Arauzia	Lochkovian, Early	419.2	416.4
3	Kimaspis	Lochkovian, Early	419.2	416.4
3	Leonotus	Lochkovian, Early	419.2	416.4
3	Lunalepis	Lochkovian, Early	419.2	416.4
3	Pruemolepis	Lochkovian, Early	419.2	416.4
2	Fieldingaspis	Lochkovian, Early	419.2	416.4
3	Gomphacanthus	Pridoli	423	419.2
1	Laterignathus	Pridoli	423	419.2
2	Aachenaspis	Pridoli	423	419.2
2	Alainaspis	Pridoli	423	419.2
2	Boothaspis	Pridoli	423	419.2
2	Homaspidella	Pridoli	423	419.2
2	Katoporus	Pridoli	423	419.2
2	Nahanniaspis	Pridoli	423	419.2
2	Timanaspis	Pridoli	423	419.2
2	Tuvaspis	Pridoli	423	419.2
2	Tyriaspis	Pridoli	423	419.2
2	Ulititaspis	Pridoli	423	419.2
2	Kallostracon	Ludlow	427.4	423
2	Kawalepsis	Ludlow	427.4	423
2	Darmuthia	Ludlow, Early	427.4	425.2
2	Sclerodus	Wenlock, Late	430	427.4
2	Tremataspis	Wenlock, Late	430	427.4
2	Asketaspis	Wenlock	433.4	427.4
2	Atelaspis	Wenlock	433.4	427.4
1	Dentacodina	Llandovery, Late	438.6	433.4
1	Johnognathus	Llandovery, Late	438.6	433.4
1	Tuxekania	Llandovery, Late	438.6	433.4
1	Dichodella	Ashgillian	449.5	443.7
1	Parabelodina	Ashgillian	449.5	443.7
1	Pravognathus	Llandeilo, Late	460.9	449.5
1	Archaeognathus	Caradocian, Early	460.9	457.1
1	Schopfodus	Caradocian, Early	460.9	457.1
1	Prattognathus	Llanvirn, Late	463.5	460.9
1	Parapaltodus	Llanvirn	466	460.9
1	Oistodella	Llanvirn, Early	466	463.5
1	Dischidognathus	Arenigian, Late	472.8	466
1	Paraprionodus	Arenigian, Late	472.8	466
1	Glyptoconus	Tremadocian, Late	481.6	477.7
1	Leutorhinion	Tremadocian, Late	481.6	477.7
1	Nericodus	Tremadocian, Late	481.6	477.7
8	Gordonia	Changhsingian	254.2	252.17
8	Jimusaria	Changhsingian	254.2	252.17
8	Dalongkoua	Changhsingian	254.2	252.17
7	Palaeagama	Changhsingian Induan	254.2	251.2
1	Neospathodus	Changhsingian Griesbachi	254.2	251.3
7	Tangasaurus	Changhsingian	254.2	252.17
1	Ellisonia	Changhsingian	254.2	252.17
1	Isarcicella	Changhsingian	254.2	252.17
1	Xaniognathus	Changhsingian	254.2	252.17

3	Changxingselache	Changhsingian	254.2	252.17
3	Meishanselache	Changhsingian	254.2	252.17
3	Sinacrodus	Changhsingian	254.2	252.17
3	Sinohelicoprion	Changhsingian	254.2	252.17
3	Surcaudalus	Changhsingian	254.2	252.17
3	Thaumatacanthus	Changhsingian	254.2	252.17
4	Baoqingichthys	Changhsingian	254.2	252.17
4	Caturus	Changhsingian	254.2	252.17
4	Ebenaqua	Changhsingian	254.2	252.17
4	Sinoplatysomus	Changhsingian	254.2	252.17
4	Zhejiangichthys	Changhsingian	254.2	252.17
5	Changxingia	Changhsingian	254.2	252.17
5	Youngichthys	Changhsingian	254.2	252.17
6	Nigerpeton	Changhsingian	254.2	252.17
6	Saharastega	Changhsingian	254.2	252.17
7	Sanchuansaurus	Changhsingian	254.2	252.17
7	Shihtienfenia	Changhsingian	254.2	252.17
7	Bunostegos	Changhsingian	254.2	252.17
7	Moradisaurus	Changhsingian	254.2	252.17
8	Delectosaurus	Vyatkian	259	252.3
8	Interpresosaurus	Vyatkian	259	252.3
8	Megawhaitsia	Vyatkian	259	252.3
8	Moschowhaitsia	Vyatkian	259	252.3
8	Malasaurus	Vyatkian	259	252.3
8	Purlovia	Vyatkian	259	252.3
7	Archosaurus	Vyatkian	259	252.3
6	Uralerpeton	Vyatkian	259	252.3
8	Daqingshanodon	Lopingian	259.9	252.17
8	Turfanodon	Lopingian	259.9	252.17
8	Burnetia	Wuchiapingiar Changhsin	259.9	252.17
8	Ictidorhinus	Wuchiapingiar Changhsin	259.9	252.17
8	Keyseria	Wuchiapingiar Changhsin	259.9	252.17
8	Kwazulusaurus	Wuchiapingiar Changhsin	259.9	252.17
8	Paragalerhinus	Wuchiapingiar Changhsin	259.9	252.17
8	Tetracynodon	Wuchiapingiar Changhsin	259.9	252.17
8	Nanictosaurus	Wuchiapingiar Changhsin	259.9	252.17
8	Lycideops	Wuchiapingiar Changhsin	259.9	252.17
8	Colobodectes	Lopingian	259.9	252.17
8	Brontopus	Lopingian	259.9	252.17
8	Cerdosuchus	Wuchiapingiar Changhsin	259.9	252.17
8	Dicynodontipus	Lopingian	259.9	252.17
8	Emydorhinus	Wuchiapingiar Changhsin	259.9	252.17
8	Ictidochampsa	Wuchiapingiar Changhsin	259.9	252.17
8	Kunpania	Lopingian	259.9	252.17
8	Notaelurodon	Wuchiapingiar Changhsin	259.9	252.17
8	Planipes	Lopingian	259.9	252.17
8	Scaloporhinus	Lopingian	259.9	252.17
8	Scaloposuchus	Wuchiapingiar Changhsin	259.9	252.17
8	Shiguaignathus	Lopingian	259.9	252.17
8	Thliptosaurus	Wuchiapingiar Changhsin	259.9	252.17
8	Vetusodon	Wuchiapingiar Changhsin	259.9	252.17
8	Homodontosaurus	Wuchiapingiar Changhsin	259.9	252.17

8 Euptychognathus	Wuchiapingian	259.9	254.17
8 Basilodon	Wuchiapingian	259.9	254.17
8 Cynosaurus	Wuchiapingian	259.9	254.17
8 Daptocephalus	Wuchiapingian	259.9	254.17
8 Scaloposaurus	Wuchiapingian	259.9	254.17
8 Aloposaurus	Wuchiapingian	259.9	254.17
8 Arctognathus	Wuchiapingian	259.9	254.17
8 Arctops	Wuchiapingian	259.9	254.17
8 Clelandina	Wuchiapingian	259.9	254.17
8 Dinogorgon	Wuchiapingian	259.9	254.17
8 Geikia	Wuchiapingian	259.9	254.17
8 Lycaenops	Wuchiapingian	259.9	254.17
8 Moschorhinus	Wuchiapingian	259.9	254.17
8 Promoschorhynchus	Wuchiapingian	259.9	254.17
8 Rubidgea	Wuchiapingian	259.9	254.17
8 Sycosaurus	Wuchiapingian	259.9	254.17
8 Aelurognathus	Wuchiapingian	259.9	254.17
8 Aulacephalodon	Wuchiapingian	259.9	254.17
8 Cerdorhinus	Wuchiapingian	259.9	254.17
8 Cistecephaloides	Wuchiapingian	259.9	254.17
8 Cistecephalus	Wuchiapingian	259.9	254.17
8 Cryptocynodon	Wuchiapingian	259.9	254.17
8 Diictodontoides	Wuchiapingian	259.9	254.17
8 Dinanomodon	Wuchiapingian	259.9	254.17
8 Emydorhynchus	Wuchiapingian	259.9	254.17
8 Emyduranus	Wuchiapingian	259.9	254.17
8 Euchambersia	Wuchiapingian	259.9	254.17
8 Herpetoskylax	Wuchiapingian	259.9	254.17
8 Icticephalus	Wuchiapingian	259.9	254.17
8 Ictidosuchops	Wuchiapingian	259.9	254.17
8 Katumbia	Wuchiapingian	259.9	254.17
8 Kawingasaurus	Wuchiapingian	259.9	254.17
8 Lemurosaurus	Wuchiapingian	259.9	254.17
8 Lycaenodon	Wuchiapingian	259.9	254.17
8 Mirotenthes	Wuchiapingian	259.9	254.17
8 Myosauroides	Wuchiapingian	259.9	254.17
8 Odontocyclops	Wuchiapingian	259.9	254.17
8 Palemydops	Wuchiapingian	259.9	254.17
8 Pelanomodon	Wuchiapingian	259.9	254.17
8 Rhachiocephalus	Wuchiapingian	259.9	254.17
8 Scylacops	Wuchiapingian	259.9	254.17
8 Sintocephalus	Wuchiapingian	259.9	254.17
8 Syops	Wuchiapingian	259.9	254.17
8 Theriognathus	Wuchiapingian	259.9	254.17
8 Cyonosaurus	Wuchiapingian	259.9	254.17
8 Dicynodontoides	Wuchiapingian	259.9	254.17
8 Hofmeyria	Wuchiapingian	259.9	254.17
8 Paraburnetia	Wuchiapingian	259.9	254.17
8 Charassognathus	Wuchiapingian	259.9	254.17
8 Ictidosuchus	Wuchiapingian	259.9	254.17
8 Lobalopex	Wuchiapingian	259.9	254.17
8 Lophorhinus	Wuchiapingian	259.9	254.17

8	Abdalodon	Wuchiapingian	259.9	254.17
8	Akidnognathus	Wuchiapingian	259.9	254.17
8	Aulacocephalus	Wuchiapingian	259.9	254.17
8	Bulbasaurus	Wuchiapingian	259.9	254.17
8	Compsodon	Wuchiapingian	259.9	254.17
8	Cyniscops	Wuchiapingian	259.9	254.17
8	Digalodon	Wuchiapingian	259.9	254.17
8	Emydochampsia	Wuchiapingian	259.9	254.17
8	Hwanghocynodon	Wuchiapingian	259.9	254.17
8	Ichibengops	Wuchiapingian	259.9	254.17
8	Kembawacela	Wuchiapingian	259.9	254.17
8	Kitchinganomodon	Wuchiapingian	259.9	254.17
8	Lende	Wuchiapingian	259.9	254.17
8	Leontosaurus	Wuchiapingian	259.9	254.17
8	Leucocephalus	Wuchiapingian	259.9	254.17
8	Microwhaitzia	Wuchiapingian	259.9	254.17
8	Mupashi	Wuchiapingian	259.9	254.17
8	Nanictidops	Wuchiapingian	259.9	254.17
8	Nanictocephalus	Wuchiapingian	259.9	254.17
8	Niassodon	Wuchiapingian	259.9	254.17
8	Ophidostoma	Wuchiapingian	259.9	254.17
8	Pelictosuchus	Wuchiapingian	259.9	254.17
8	Platycyclops	Wuchiapingian	259.9	254.17
8	Polycynodon	Wuchiapingian	259.9	254.17
8	Prodicynodon	Wuchiapingian	259.9	254.17
8	Ruhuhucerberus	Wuchiapingian	259.9	254.17
8	Saurosaptor	Wuchiapingian	259.9	254.17
8	Silphoictidoides	Wuchiapingian	259.9	254.17
8	Smilesaurus	Wuchiapingian	259.9	254.17
8	Tigrisuchus	Wuchiapingian	259.9	254.17
6	Tungussogyrinus	Lopingian Early Trias	259.9	247.2
6	Bothriceps	Lopingian Induan	259.9	251.2
7	Acerosodontosaurus	Lopingian	259.9	252.17
7	Claudiosaurus	Lopingian	259.9	252.17
7	Hovasaurus	Lopingian	259.9	252.17
7	Thadeosaurus	Lopingian	259.9	252.17
7	Saurosternon	Wuchiapingian Changhsin	259.9	252.17
7	Ganasauripus	Lopingian	259.9	252.17
7	Prochirotherium	Lopingian	259.9	252.17
7	Thecodontichnus	Lopingian	259.9	252.17
7	Onychichnium	Lopingian	259.9	252.17
7	Paradoxichnium	Lopingian	259.9	252.17
7	Rhynchosauroides	Lopingian	259.9	252.17
3	Gansuselache	Wuchiapingian Changhsin	259.9	252.17
6	Characichnos	Wuchiapingian Changhsin	259.9	252.17
6	Janusichnus	Lopingian	259.9	252.17
6	Lunaepes	Lopingian	259.9	252.17
6	Merifontichnus	Lopingian	259.9	252.17
6	Uranocentron	Lopingian	259.9	252.17
6	Lydekkerina	Wuchiapingian Changhsin	259.9	252.17
6	Nasopus	Lopingian	259.9	252.17
7	Barasaurus	Lopingian	259.9	252.17

7	Elginia	Lopingian	259.9	252.17
7	Milleropsis	Wuchiapingiar Changhsin	259.9	252.17
7	Millerosaurus	Wuchiapingiar Changhsin	259.9	252.17
7	Hyloidichnus	Wuchiapingiar Changhsin	259.9	252.17
7	Millerinoides	Wuchiapingiar Changhsin	259.9	252.17
7	Pachypes	Lopingian	259.9	252.17
7	Procolophonichnium	Lopingian	259.9	252.17
7	Spondylolestes	Wuchiapingiar Changhsin	259.9	252.17
7	Youngina	Wuchiapingian	259.9	254.17
7	Coelurosauravus	Wuchiapingian	259.9	254.17
7	Adelosaurus	Wuchiapingian	259.9	254.17
7	Galesphyrus	Wuchiapingian	259.9	254.17
7	Protorosaurus	Wuchiapingian	259.9	254.17
7	Weigeltisaurus	Wuchiapingian	259.9	254.17
7	Aenigmastropheus	Wuchiapingian	259.9	254.17
7	Glaurung	Wuchiapingian	259.9	254.17
1	Lepidotosaurus	Wuchiapingian	259.9	254.17
3	Ancistriodus	Wuchiapingian	259.9	254.17
3	Arctacanthus	Wuchiapingian	259.9	254.17
3	Asteracanthus	Wuchiapingian	259.9	254.17
3	Erikodus	Wuchiapingian	259.9	254.17
3	Hamatus	Wuchiapingian	259.9	254.17
3	Helicampodus	Wuchiapingian	259.9	254.17
3	Hopleacanthus	Wuchiapingian	259.9	254.17
3	Menaspis	Wuchiapingian	259.9	254.17
3	Parahelicampodus	Wuchiapingian	259.9	254.17
3	Sarcoprion	Wuchiapingian	259.9	254.17
3	Xystracanthus	Wuchiapingian	259.9	254.17
4	Australosomus	Wuchiapingian	259.9	254.17
4	Dorypterus	Wuchiapingian	259.9	254.17
4	Muensterichthys	Wuchiapingian	259.9	254.17
4	Plegmolepis	Wuchiapingian	259.9	254.17
4	Reticulolepis	Wuchiapingian	259.9	254.17
6	Trucheosaurus	Wuchiapingian	259.9	254.17
6	Laccosaurus	Wuchiapingian	259.9	254.17
6	Peltobatrachus	Wuchiapingian	259.9	254.17
6	Rhineceps	Wuchiapingiar Late Kazan	259.9	254.17
6	Bystrowiana	Wuchiapingian	259.9	254.17
6	Alveusdectes	Wuchiapingian	259.9	254.17
6	Dromotectum	Wuchiapingian	259.9	254.17
6	Jiyuanitectum	Wuchiapingian	259.9	254.17
7	Acrodonta(Acrodongia)	Wuchiapingian	259.9	254.17
7	Arganaceras	Wuchiapingian	259.9	254.17
7	Owenetta	Wuchiapingian	259.9	254.17
7	Anthodon	Wuchiapingian	259.9	254.17
7	Milleretta	Wuchiapingian	259.9	254.17
7	Nanoparia	Wuchiapingian	259.9	254.17
7	Parasaurus	Wuchiapingian	259.9	254.17
7	Pumiliopareia	Wuchiapingian	259.9	254.17
7	Saurorictus	Wuchiapingian	259.9	254.17
7	Zhongjiania	Wuchiapingian	259.9	254.17
8	Elph	Late Severodvi Vyatkian	265	252.3

8	Pravoslavlevia	Late Severodvi Vyatkian	265	252.3
8	Uralocynodon	Late Severodvi Vyatkian	265	252.3
8	Annatherapsidus	Late Severodvi Vyatkian	265	252.3
8	Chthonosaurus	Late Severodvi Vyatkian	265	252.3
8	Inostrancevia	Late Severodvi Vyatkian	265	252.3
8	Nanocynodon	Late Severodvi Vyatkian	265	252.3
8	Procynosuchus	Late Severodvi Vyatkian	265	252.3
8	Dvinia	Late Severodvi Vyatkian	265	252.3
8	Australobarbarus	Early Severodvinian	265	252.3
8	Karenites	Early Severodvinian	265	252.3
8	Scalopodontes	Early Severodvinian	265	252.3
8	Viatkogorgon	Early Severodvinian	265	252.3
8	Viatkosuchus	Early Severodvinian	265	252.3
8	Fortunodon	Late Severodvi Vyatkian	265	252.3
8	Gorochovetzia	Late Severodvi Vyatkian	265	252.3
8	Kotelcephalon	Early Severodvinian	265	252.3
8	Leogorgon	Late Severodvi Vyatkian	265	252.3
8	Muchia	Early Severodvinian	265	252.3
8	Nochnitsa	Early Severodvinian	265	252.3
8	Scylacosuchus	Late Severodvinian	265	254
8	Idelesaurus	Late Severodvinian	265	254
8	Niuksenitia	Late Severodvinian	265	254
8	Sauroctonus	Late Severodvinian	265	254
8	Suchogorgon	Late Severodvinian	265	254
8	Ustia	Late Severodvinian	265	254
8	Proburnetia	Late Severodvinian	265	254
8	Suminia	Late Severodvinian	265	254
8	Sludica	Severodvinian	265	254
7	Rautiania	Severodvinian Vyatkian	265	252.3
4	Boreolepis	Late Severodvi Vyatkian	265	252.3
4	Saurichthys	Late Severodvi Vyatkian	265	252.3
6	Jarilinus	Late Severodvi Vyatkian	265	252.3
6	Kotlassia	Late Severodvi Vyatkian	265	252.3
6	Suchonica	Early Severodvinian	265	252.3
7	Suchonosaurus	Late Severodvi Vyatkian	265	252.3
7	Deltavjatia	Early Severodvinian	265	252.3
7	Emeroleter	Early Severodvinian	265	252.3
7	Obirkovia	Late Severodvi Vyatkian	265	252.3
7	Eorasaurus	Late Severodvinian	265	254
4	Mutovinia	Late Severodvinian	265	254
7	Scutosaurus	Late Severodvinian	265	254
8	Ictidognathus	Capitanian Wuchiapin	265.1	254.17
8	Scylacoides	Capitanian Wuchiapin	265.1	254.17
8	Alopecorhinus	Capitanian Wuchiapin	265.1	254.17
8	Blattoidealestes	Capitanian Wuchiapin	265.1	254.17
8	Dicynodon	Capitanian	265.1	259.9
8	Oudenodon	Capitanian	265.1	259.9
8	Endothiodon	Capitanian	265.1	259.9
8	Pristerognathus	Capitanian	265.1	259.9
8	Gorgonops	Capitanian	265.1	259.9
8	Eosimops	Capitanian	265.1	259.9
8	Alopecognathus	Capitanian	265.1	259.9

8	Anteosaurus	Capitanian	265.1	259.9
8	Avenantia	Capitanian	265.1	259.9
8	Cynariognathus	Capitanian	265.1	259.9
8	Delphinognathus	Capitanian	265.1	259.9
8	Galechirus	Capitanian	265.1	259.9
8	Galeops	Capitanian	265.1	259.9
8	Hipposaurus	Capitanian	265.1	259.9
8	Keratocephalus	Capitanian	265.1	259.9
8	Lanthanostegus	Capitanian	265.1	259.9
8	Lycosuchus	Capitanian	265.1	259.9
8	Moschops	Capitanian	265.1	259.9
8	Pachydectes	Capitanian	265.1	259.9
8	Phocosaurus	Capitanian	265.1	259.9
8	Pristerodon	Capitanian	265.1	259.9
8	Ptomalestes	Capitanian	265.1	259.9
8	Riebeeckosaurus	Capitanian	265.1	259.9
8	Robertia	Capitanian	265.1	259.9
8	Scylacosaurus	Capitanian	265.1	259.9
8	Scymnosaurus	Capitanian	265.1	259.9
8	Struthiocephaloides	Capitanian	265.1	259.9
8	Struthiocephalus	Capitanian	265.1	259.9
8	Styracocephalus	Capitanian	265.1	259.9
8	Tapinocephalus	Capitanian	265.1	259.9
8	Taurocephalus	Capitanian	265.1	259.9
8	Therioides	Capitanian	265.1	259.9
8	Trochosuchus	Capitanian	265.1	259.9
8	Tropidostoma	Capitanian	265.1	259.9
8	Alepognathus	Capitanian	265.1	259.9
8	Alopecideops	Capitanian	265.1	259.9
8	Alopecodon	Capitanian	265.1	259.9
8	Criocephalosaurus	Capitanian	265.1	259.9
8	Eriphostoma	Capitanian	265.1	259.9
8	Gorynychus	Capitanian	265.1	259.9
8	Hyaenasuchus	Capitanian	265.1	259.9
8	Julognathus	Capitanian	265.1	259.9
8	Lycedops	Capitanian	265.1	259.9
8	Lycosaurus	Capitanian	265.1	259.9
8	Lystrosaurus	Capitanian	265.1	259.9
8	Parasuminia	Capitanian	265.1	259.9
8	Pardosuchus	Capitanian	265.1	259.9
8	Pristerognathoides	Capitanian	265.1	259.9
8	Pristerosaurus	Capitanian	265.1	259.9
8	Tamboeria	Capitanian	265.1	259.9
8	Trochorhinus	Capitanian	265.1	259.9
8	Trochosaurus	Capitanian	265.1	259.9
8	Walteria	Capitanian	265.1	259.9
8	Heleosaurus	Capitanian	265.1	259.9
8	Elliotsmithia	Capitanian	265.1	259.9
8	Anningia	Capitanian	265.1	259.9
8	Microvaranops	Capitanian	265.1	259.9
1	Clarkina	Capitanian	265.1	259.9
4	Acropholis	Capitanian	265.1	259.9

4	Angatubichthys	Capitanian		265.1	259.9
4	Atherstonia	Capitanian		265.1	259.9
4	Koinichthys	Capitanian		265.1	259.9
4	Pygopterus	Capitanian		265.1	259.9
6	Rhinesuchus	Capitanian	Late Kazan	265.1	259.9
6	Rhinesuchoides	Capitanian	Late Kazan	265.1	259.9
6	Chroniosaurus	Capitanian		265.1	259.9
6	Microphon	Capitanian		265.1	259.9
7	Pareiasaurus	Capitanian		265.1	259.9
7	Pareiasuchus	Capitanian		265.1	259.9
7	Australothyris	Capitanian		265.1	259.9
7	Bradysaurus	Capitanian		265.1	259.9
7	Broomia	Capitanian		265.1	259.9
7	Embrithosaurus	Capitanian		265.1	259.9
7	Eunotosaurus	Capitanian		265.1	259.9
7	Nochelesaurus	Capitanian		265.1	259.9
8	Notosyodon	Urzhumian	Early Sever	268	252.3
8	Porosteognathus	Urzhumian	Early Sever	268	252.3
8	Ulemosaurus	Urzhumian	Early Sever	268	252.3
8	Microurania	Urzhumian	Early Sever	268	252.3
8	Perplexisaurus	Urzhumian	Early Sever	268	252.3
8	Titanophoneus	Urzhumian		268	265
8	Ulemica	Urzhumian		268	265
8	Archaeosyodon	Urzhumian		268	265
8	Biarmosuchoides	Urzhumian		268	265
8	Deuterosaurus	Urzhumian		268	265
8	Estemmenosuchus	Urzhumian		268	265
8	Molybdopygus	Urzhumian		268	265
8	Otsheria	Urzhumian		268	265
8	Venyukovia	Urzhumian		268	265
8	Phthinosaurus	Urzhumian		268	265
8	Chthomaloporus	Urzhumian		268	265
8	Dinosaurus	Urzhumian		268	265
8	Rhopalodon	Urzhumian		268	265
3	Wodnika	Urzhumian	Early Sever	268	252.3
4	Geryonichthys	Tatarian		268	252.3
4	Isadia	Tatarian		268	252.3
4	Lapkosubia	Tatarian		268	252.3
4	Sludalepis	Tatarian		268	252.3
4	Strelnia	Tatarian		268	252.3
4	Toyemia	Tatarian		268	252.3
6	Tryphosuchus	Urzhumian	Late Kazan	268	252.3
6	Uralosuchus	Urzhumian		268	252.3
6	Anthichnium	Tatarian		268	252.3
6	Enosuchus	Urzhumian	Early Sever	268	252.3
7	Lanthanosuchus	Urzhumian	Early Sever	268	252.3
7	Permotriturus	Urzhumian	Early Sever	268	252.3
7	Sukhonopus	Tatarian		268	252.3
4	Eurynotoides	Urzhumian		268	265
6	Dvinosaurus	Urzhumian		268	265
6	Konzhukovia	Urzhumian		268	265
6	Bashkirosaurus	Urzhumian		268	265

6	Collidosuchus	Urzhumian		268	265
6	Iratusaurus	Urzhumian		268	265
6	Kamacops	Urzhumian		268	265
7	Chalcosaurus	Urzhumian		268	265
7	Davletkulia	Urzhumian		268	265
7	Rhipaeosaurus	Urzhumian		268	265
8	Bullacephalus	Wordian	Capitanian	268.8	259.9
8	Abajudon	Wordian	Capitanian	268.8	259.9
8	Brachyprosopus	Wordian	Capitanian	268.8	259.9
8	Pampaphoneus	Wordian	Capitanian	268.8	259.9
8	Rastodon	Wordian	Capitanian	268.8	259.9
8	Anomocephalus	Wordian		268.8	265.1
8	Glanosuchus	Wordian		268.8	265.1
8	Ictidosaurus	Wordian		268.8	265.1
8	Australosyodon	Wordian		268.8	265.1
8	Patranomodon	Wordian		268.8	265.1
8	Eodicynodon	Wordian		268.8	265.1
6	Australerpeton	Wordian		268.8	254.17
4	Paranaichthys	Wordian	Capitanian	268.8	259.9
1	Merrillina	Wordian		268.8	265.1
3	Helodopsis	Wordian		268.8	265.1
3	Khuffia	Wordian		268.8	265.1
3	Nemacanthus	Wordian		268.8	265.1
3	Omanoselache	Wordian		268.8	265.1
3	Solenodus	Wordian		268.8	265.1
3	Teresodus	Wordian		268.8	265.1
3	Texasodus	Wordian		268.8	265.1
3	Xenosynechodus	Wordian		268.8	265.1
4	Amblypterina	Wordian		268.8	265.1
4	Discordichthys	Wordian		268.8	265.1
4	Euryosomus	Wordian		268.8	265.1
4	Kichkassia	Wordian		268.8	265.1
4	Samarichthys	Wordian		268.8	265.1
6	Chroniosuchus	Wordian		268.8	265.1
6	Karpinskiosaurus	Wordian		268.8	265.1
7	Kinelia	Wordian		268.8	265.1
8	Aelurosaurus	Guadalupian		272.3	259.9
8	Diictodon	Guadalupian		272.3	259.9
8	Emydops	Guadalupian		272.3	259.9
8	Mormosaurus	Guadalupian		272.3	259.9
8	Prosictodon	Guadalupian		272.3	259.9
8	Titanosuchus	Guadalupian		272.3	259.9
8	Cerdodon	Guadalupian		272.3	259.9
8	Choerosaurus	Guadalupian		272.3	259.9
8	Tiarajudens	Roadian	Capitanian	272.3	259.9
8	Wantulignathus	Guadalupian		272.3	259.9
8	Varanodon	Roadian	Wordian	272.3	265.1
8	Watongia	Roadian	Wordian	272.3	265.1
8	Biseridens	Roadian		272.3	268.8
8	Raranimus	Roadian		272.3	268.8
8	Sinophoneus	Roadian		272.3	268.8
6	Parapytanga	Roadian	Wuchiapin	272.3	254.17

6	Bageherpeton	Roadian		272.3	259.9
7	Provelosaurus	Roadian	Capitanian	272.3	259.9
6	Fayella	Roadian	Wordian	272.3	265.1
6	Nannospondylus	Roadian	Wordian	272.3	265.1
6	Cymatorhiza	Roadian	Wordian	272.3	265.1
1	Kamagnathus	Roadian		272.3	268.8
3	Batacanthus	Roadian		272.3	268.8
3	Isacrodus	Roadian		272.3	268.8
3	Kanodus	Roadian		272.3	268.8
3	Neopetalodus	Roadian		272.3	268.8
4	Acentrophorus	Roadian		272.3	268.8
4	Alilepis	Roadian		272.3	268.8
4	Kazanichthys	Roadian		272.3	268.8
4	Palaeoniscum	Roadian		272.3	268.8
6	Anakamacops	Roadian		272.3	268.8
6	Ingentidens	Roadian		272.3	268.8
6	Phratochronis	Roadian		272.3	268.8
6	Yumenerpeton	Roadian		272.3	268.8
7	Gansurhinus	Roadian		272.3	268.8
8	Ennatosaurus	Late Kazanian	Urzhumian	272.5	265
8	Mesenosaurus	Late Kazanian	Urzhumian	272.5	265
8	Pyozia	Late Kazanian	Urzhumian	272.5	265
8	Alrausuchus	Late Kazanian	Urzhumian	272.5	265
8	Niaftasuchus	Late Kazanian	Urzhumian	272.5	265
8	Nikkasaurus	Late Kazanian	Urzhumian	272.5	265
8	Reiszia	Late Kazanian	Urzhumian	272.5	265
7	Lanthanolania	Late Kazanian	Urzhumian	272.5	265
7	Nyctiphruetus	Late Kazanian	Urzhumian	272.5	265
7	Lanthaniscus	Late Kazanian	Urzhumian	272.5	265
7	Bashkyroleter	Late Kazanian	Urzhumian	272.5	265
7	Macroleter	Late Kazanian	Urzhumian	272.5	265
7	Nycteroleter	Late Kazanian	Urzhumian	272.5	265
4	Kargalichthys	Late Kazanian		272.5	268
4	Varialepis	Late Kazanian		272.5	268
8	Angelosaurus	Kungurian	Roadian	279.3	268.8
8	Caseoides	Kungurian	Roadian	279.3	268.8
8	Caseopsis	Kungurian	Roadian	279.3	268.8
8	Gorgodon	Kungurian	Roadian	279.3	268.8
8	Knoxosaurus	Kungurian	Roadian	279.3	268.8
8	Steppesaurus	Kungurian	Roadian	279.3	268.8
8	Dimacrodon	Kungurian	Roadian	279.3	268.8
8	Driveria	Kungurian	Roadian	279.3	268.8
8	Mastersonia	Kungurian	Roadian	279.3	268.8
8	Tappenosaurus	Kungurian	Roadian	279.3	268.8
8	Varanops	Kungurian		279.3	272.3
8	Trichasaurus	Kungurian		279.3	272.3
8	Tapinocaninus	Kungurian		279.3	272.3
8	Tetraceratops	Kungurian		279.3	272.3
1	Mesogondolella	Kungurian	Roadian	279.3	268.8
1	Pseudohindeodus	Kungurian	Roadian	279.3	268.8
1	Stepanovites	Kungurian	Roadian	279.3	268.8
6	Slaughenhopia	Kungurian		279.3	268.8

7	Kahneria	Kungurian	Roadian	279.3	268.8
7	Rothianiscus	Kungurian	Roadian	279.3	268.8
3	Crassidonta	Kungurian		279.3	272.3
3	Diablodontus	Kungurian		279.3	272.3
3	Hunanohelicopteron	Kungurian		279.3	272.3
3	Kaibabvenator	Kungurian		279.3	272.3
3	Nanoskalme	Kungurian		279.3	272.3
3	Neosaivodus	Kungurian		279.3	272.3
4	Brazilichthys	Kungurian		279.3	272.3
4	Grandfieldia	Kungurian		279.3	272.3
4	Lawnia	Kungurian		279.3	272.3
4	Schaefferichthys	Kungurian		279.3	272.3
5	Goniocephalus	Kungurian		279.3	272.3
6	Erpetopus	Kungurian		279.3	272.3
6	Gerobatrachus	Kungurian		279.3	272.3
6	Prionosuchus	Kungurian		279.3	272.3
6	Anisodexis	Kungurian		279.3	272.3
6	Bathyglyptus	Kungurian		279.3	272.3
6	Procuhy	Kungurian		279.3	272.3
6	Timonya	Kungurian		279.3	272.3
6	Hapsidopareion	Kungurian		279.3	272.3
6	Micraroter	Kungurian		279.3	272.3
6	Ostodolepis	Kungurian		279.3	272.3
6	Pelodosotis	Kungurian		279.3	272.3
6	Quasicaecilia	Kungurian		279.3	272.3
6	Rhynchonkos	Kungurian		279.3	272.3
6	Waggoneria	Kungurian		279.3	272.3
6	Aletrimyti	Kungurian		279.3	272.3
6	Dvellecanus	Kungurian		279.3	272.3
7	Acleistorhinus	Kungurian		279.3	272.3
7	Captorhinoides	Kungurian		279.3	272.3
8	Phreatophasma	Ufimian	Late Kazan	279.5	268
8	Biarmosuchus	Ufimian	Late Kazan	279.5	268
8	Kamagorgon	Ufimian	Late Kazan	279.5	268
8	Microsyodon	Ufimian	Late Kazan	279.5	268
8	Parabradysaurus	Ufimian	Late Kazan	279.5	268
8	Syodon	Ufimian		279.5	272.5
6	Platyoposaurus	Ufimian		279.5	268
6	Zygosaurus	Ufimian		279.5	268
6	Koinia	Ufimian		279.5	268
6	Melosaurus	Ufimian		279.5	268
6	Timanosaurus	Ufimian	Late Kazan	279.5	268
6	Leptoropha	Ufimian	Late Kazan	279.5	268
6	Biarmica	Ufimian	Late Kazan	279.5	268
6	Nyctiboetus	Ufimian	Late Kazan	279.5	268
7	Gecatogomphius	Ufimian	Late Kazan	279.5	268
4	Tchekardichthys	Irenian		279.5	272.5
6	Clamorosaurus	Ufimian		279.5	272.5
6	Intasuchus	Ufimian		279.5	272.5
6	Syndyodosuchus	Ufimian		279.5	272.5
6	Aversor	Ufimian		279.5	272.5
6	Gnorhimosuchus	Ufimian		279.5	272.5

8	Alierasaurus					Artinskian	Roadian	290.1	268.8
8	Glaucosaurus					Artinskian	Kungurian	290.1	272.3
8	Varanosaurus					Artinskian		290.1	279.3
8	Eothyris					Artinskian		290.1	279.3
8	Secodontosaurus					Artinskian		290.1	279.3
8	Bathygnathus					Artinskian		290.1	279.3
8	Callibrachion					Artinskian		290.1	279.3
8	Ctenorhachis					Artinskian		290.1	279.3
8	Tambacarnifex					Artinskian		290.1	279.3
8	Jonkeria	WOR(u)	CAP(l)	267	262.5	Artinskian		290.1	279.3
4	Luederia					Leonard		290.1	268
7	Abyssomedon					Leonard		290.1	268
7	Delorhynchus					Leonard		290.1	268
7	Dictybolos					Leonard		290.1	268
7	Feeserpeton					Leonard		290.1	268
7	Labidosauriscus					Leonard		290.1	268
7	Opisthodontosaurus					Leonard		290.1	268
4	Eurylepidoides					Artinskian	Kungurian	290.1	272.3
5	Spermatodus					Artinskian	Kungurian	290.1	272.3
6	Chilonyx					Artinskian	Kungurian	290.1	272.3
7	Reiszorhinus	KUN(l)	KUN(l)	279.3	275.8	Artinskian	Kungurian	290.1	272.3
7	Araeoscelis	SAK(l)	KUN(u)	295.5	272.3	Artinskian		290.1	279.3
7	Dimetropus					Artinskian		290.1	279.3
1	Neostreptognathodus					Artinskian		290.1	279.3
3	Artiodus					Artinskian		290.1	279.3
3	Cobelodus					Artinskian		290.1	279.3
3	Itapyrodus					Artinskian		290.1	279.3
3	Macrodontacanthus					Artinskian		290.1	279.3
3	Polyacrodus					Artinskian		290.1	279.3
4	Brachydegma					Artinskian		290.1	279.3
4	Sphaerolepis					Artinskian		290.1	279.3
4	Watsonichthys					Artinskian		290.1	279.3
6	Tambachichnium					Artinskian		290.1	279.3
6	Acheloma	KUN(u)		275.8	272.3	Artinskian		290.1	279.3
6	Georgenthalia	ART(l)		290.1	284.7	Artinskian		290.1	279.3
6	Phonerpeton	ART(l)		290.1	284.7	Artinskian		290.1	279.3
6	Tambachia	ART(l)		290.1	284.7	Artinskian		290.1	279.3
6	Tersomius	ASS(l)	KUN(u)	298.9	272.3	Artinskian		290.1	279.3
6	Amphisauropus					Artinskian		290.1	279.3
6	Chelydosaurus					Artinskian		290.1	279.3
6	Cricotillus					Artinskian		290.1	279.3
6	Rotaryus					Artinskian		290.1	279.3
6	Cardiocephalus	KUN(u)		275.8	272.3	Artinskian		290.1	279.3
6	Crossotelos	KUN(l)	KUN(u)	279.3	272.3	Artinskian		290.1	279.3
6	Carrolla	ART(l)		290.1	284.7	Artinskian		290.1	279.3
6	Orobates	ART(l)		290.1	284.7	Artinskian		290.1	279.3
6	Tambaroter	ART(l)		290.1	284.7	Artinskian		290.1	279.3
6	Pantylus	SAK(l)	KUN(l)	295.5	275.8	Artinskian		290.1	279.3
6	Seymouria	ASS(l)	KUN(u)	298.9	272.3	Artinskian		290.1	279.3
6	Ichniotherium					Artinskian		290.1	279.3
6	Silvadectes					Artinskian		290.1	279.3
7	Captorhinus	KUN(l)	KUN(u)	279.3	272.3	Artinskian		290.1	279.3

7	Brazilosaurus	ART(u)	ART(u)	284.7	279.3	Artinskian		290.1	279.3
7	Stereosternum	ART(u)	ART(u)	284.7	279.3	Artinskian		290.1	279.3
7	Mesosaurus	ART(l)	ART(u)	290.1	279.3	Artinskian		290.1	279.3
7	Eudibamus	ART(l)	ART(l)	290.1	284.7	Artinskian		290.1	279.3
7	Thuringothyris	ART(l)	ART(l)	290.1	284.7	Artinskian		290.1	279.3
7	Protocaptorhinus	SAK(l)	WUC(l)	295.5	253.2	Artinskian		290.1	279.3
7	Metamosaurus					Artinskian		290.1	279.3
7	Varanopus					Artinskian		290.1	279.3
8	Ascendonanus					Sakmarian	Artinskian	295.5	279.3
8	Ctenospondylus	SAK(l)	ART(u)	295.5	279.3	Sakmarian		295.5	290.1
6	Pariotichus	SAK(l)	SAK(u)	295.5	290.1	Sakmarian		295.5	279.3
7	Kadaliosaurus					Sakmarian		295.5	290.1
1	Sweetognathus					Sakmarian		295.5	290.1
3	Desmiodus					Sakmarian		295.5	290.1
3	Gondwanodus					Sakmarian		295.5	290.1
3	Serratodus					Sakmarian		295.5	290.1
3	Synechodus					Sakmarian		295.5	290.1
4	Stemmatodus					Sakmarian		295.5	290.1
6	Acanthostomatops	ASS(l)	SAK(l)	298.9	292.8	Sakmarian		295.5	290.1
6	Eimerisaurus					Sakmarian		295.5	290.1
6	Euryodus	ASS(u)	KUN(u)	297.2	272.3	Sakmarian		295.5	290.1
6	Ductilodon	ASS(l)	SAK(u)	298.9	290.1	Sakmarian		295.5	290.1
6	Ambedus	ASS(l)	ASS(u)	298.9	295.5	Sakmarian		295.5	290.1
6	Stephanospondylus	ASS(l)		298.9	297.2	Sakmarian		295.5	290.1
8	Cutleria					Wolfcamp		296.4	268
8	Vaughnictis					Wolfcamp		296.4	268
6	Oradectes					Wolfcamp		296.4	268
8	Dimetrodon	ASS(l)	KUN(u)	298.9	272.3	Asselian	Sakmarian	298.9	290.1
8	Neosaurus	ASS(l)	ASS(u)	298.9	295.5	Autunian		298.9	295
8	Lupeosaurus	SAK(l)		295.5	292.8	Asselian		298.9	295.5
8	Hypselohaptodus					Asselian		298.9	295.5
7	Chelichnus					Cisuralian		298.9	272.3
7	Herpetichnus					Cisuralian		298.9	272.3
3	Toxoprion					Cisuralian		298.9	272.3
3	Helicoprion					Asselian	Sakmarian	298.9	290.1
4	Aeduella					Asselian	Sakmarian	298.9	290.1
4	Paramblypterus					Asselian	Sakmarian	298.9	290.1
4	Roslerichthys					Asselian	Sakmarian	298.9	290.1
5	Ectosteorhachis					Asselian	Sakmarian	298.9	290.1
6	Rubeostratilia	ART(l)		290.1	284.7	Asselian	Capitanian	298.9	290.1
6	Broiliellus	SAK(u)	KUN(u)	292.8	272.3	Asselian	Sakmarian	298.9	290.1
6	Kashmirosaurus	SAK(l)	SAK(u)	295.5	290.1	Asselian	Sakmarian	298.9	290.1
6	Lysipterygium	SAK(l)	SAK(u)	295.5	290.1	Asselian	Sakmarian	298.9	290.1
6	Parioxys	SAK(l)	SAK(u)	295.5	290.1	Asselian	Sakmarian	298.9	290.1
6	Brevadorsum	SAK(l)		295.5	292.8	Asselian	Sakmarian	298.9	290.1
6	Palatinerpeton	ASS(u)		297.2	272.3	Asselian	Sakmarian	298.9	290.1
6	Trimerorhachis	ASS(l)	ART(u)	298.9	279.3	Asselian	Sakmarian	298.9	290.1
6	Reiszerpeton					Asselian	Sakmarian	298.9	290.1
7	Bolosaurus	ASS(l)	KUN(u)	298.9	272.3	Asselian	Sakmarian	298.9	290.1
4	Progyrolepis					Autunian		298.9	295
6	Leptorophus	ASS(l)		298.9	297.2	Autunian		298.9	295
6	Schoenfelderpeton	ASS(l)		298.9	297.2	Autunian		298.9	295

6	Actinodon				Autunian	298.9	295
6	Pleuronoura				Autunian	298.9	295
6	Makowskia	SAK(l)		295.5 292.8	Autunian	298.9	295
6	Spinarerpeton	SAK(l)		295.5 292.8	Autunian	298.9	295
6	Discosauriscus	ASS(u)	CHX	297.2 252.2	Autunian	298.9	295
7	Aphelosaurus				Asselian	298.9	295.5
3	Acrodus				Asselian	298.9	295.5
3	Anodontacanthus				Asselian	298.9	295.5
3	Kunguroodus				Asselian	298.9	295.5
3	Parahelicoprion				Asselian	298.9	295.5
5	Monongahela				Asselian	298.9	295.5
5	Persephonichthys				Asselian	298.9	295.5
6	Conjunctio	SAK(l)	ART(l)	295.5 284.7	Asselian	298.9	295.5
6	Acropous	ASS(u)		297.2 272.3	Asselian	298.9	295.5
6	Archegosaurus	ASS(u)		297.2 272.3	Asselian	298.9	295.5
6	Cheliderpeton	ASS(u)		297.2 272.3	Asselian	298.9	295.5
6	Glanochthon	ASS(u)		297.2 272.3	Asselian	298.9	295.5
6	Dasyceps	ASS(l)		298.9 297.2	Asselian	298.9	295.5
6	Plemmyradytes	ASS(l)		298.9 297.2	Asselian	298.9	295.5
6	Sclerocephalus	GZE	SAK(l)	303.7 292.8	Asselian	298.9	295.5
6	Scapanops				Asselian	298.9	295.5
6	Archeria	SAK(l)	KUN(l)	295.5 275.8	Asselian	298.9	295.5
6	Batropetes	ASS(l)	SAK(l)	298.9 292.8	Asselian	298.9	295.5
6	Phanerosaurus	ASS(l)	SAK(l)	298.9 292.8	Asselian	298.9	295.5
6	Saxonerpeton	ASS(l)	SAK(l)	298.9 292.8	Asselian	298.9	295.5
6	Altenglanerpeton				Asselian	298.9	295.5
6	Huskerpeton				Asselian	298.9	295.5
7	Protorothyris	SAK(l)		295.5 292.8	Asselian	298.9	295.5
7	Romeria	SAK(l)		295.5 292.8	Asselian	298.9	295.5
x	Laoporus				Permian	298.9	252.17
x	Osteophorus				Rotliegendes	298.9	254
8	Datheosaurus				Kuzel	301.2	298.9
8	Edaphosaurus	ASS(l)	KUN(u)	298.9 272.3	Virgilian	303.4	298.9
8	Ophiacodon	ASS(l)	KUN(l)	298.9 275.8	Virgilian	303.4	298.9
8	Nitosaurus	ASS(l)	ASS(u)	298.9 295.5	Virgilian	303.4	298.9
8	Aerosaurus	ASS(l)	ASS(l)	298.9 297.2	Virgilian	303.4	298.9
8	Baldwinonus	ASS(l)	ASS(l)	298.9 297.2	Virgilian	303.4	298.9
8	Ruthiromia	ASS(l)	ASS(l)	298.9 297.2	Virgilian	303.4	298.9
8	Archaeovenator				Virgilian	303.4	298.9
8	Eocasea				Virgilian	303.4	298.9
8	Sphenacodon				Virgilian	303.4	298.9
3	Hybodus				Virgilian	Asselian	303.4 295.5
6	Edops	SAK(l)		295.5 292.8	Virgilian	303.4	298.9
6	Zatrachys	GZE	SAK(u)	303.7 290.1	Virgilian	303.4	298.9
6	Platyhystrix	GZE	ASS(u)	303.7 295.5	Virgilian	303.4	298.9
6	Chenoprosopus	GZE	ASS(l)	303.7 297.2	Virgilian	303.4	298.9
6	Fedexia	GZE		303.7 298.9	Virgilian	303.4	298.9
6	Milnererpeton	GZE		303.7 298.9	Virgilian	303.4	298.9
6	Eoscopus	KAS		307 303.7	Virgilian	303.4	298.9
6	Chamasaurus				Virgilian	303.4	298.9
6	Diadectes	ASS(l)	KUN(u)	298.9 272.3	Virgilian	303.4	298.9
7	Spinoaequalis	GZE	GZE	303.7 298.9	Virgilian	303.4	298.9

7	Euconcordia					Virgilian		303.4	298.9
6	Iberospondylus	GZE		303.7	298.9	Stephanian C		303.4	301.2
6	Puertollanopus					Stephanian C		303.4	301.2
8	Cotylorhynchus	KUN(u)	ROA	275.8	268.8	Gzhelian	Sakmarian	303.7	290.1
8	Cryptovenator	GZE	GZE	303.7	298.9	Gzhelian		303.7	298.9
3	Xenacanthus					Gzhelian	Sakmarian	303.7	290.1
6	Trypanognathus					Gzhelian	Asselian	303.7	295.5
7	Belebey	ROA	WOR	272.3	265.1	Gzhelian	Asselian	303.7	295.5
3	Barbclabornia					Gzhelian		303.7	298.9
3	Campodus					Gzhelian		303.7	298.9
3	Hamiltonichthys					Gzhelian		303.7	298.9
3	Hammondella					Gzhelian		303.7	298.9
3	Inioxyele					Gzhelian		303.7	298.9
3	Kawichthys					Gzhelian		303.7	298.9
3	Megactenopetalus					Gzhelian		303.7	298.9
3	Simmorius					Gzhelian		303.7	298.9
4	Namaichthys					Gzhelian		303.7	298.9
6	Onchiodon	ASS(u)	SAK(l)	297.2	272.3	Gzhelian		303.7	298.9
6	Aspidosaurus	ASS(l)	KUN(u)	298.9	272.3	Gzhelian		303.7	298.9
6	Micromelerpeton	ASS(l)	SAK(l)	298.9	292.8	Gzhelian		303.7	298.9
6	Melanerpeton	ASS(l)	ASS(u)	298.9	295.5	Gzhelian		303.7	298.9
6	Apateon	GZE	SAK(l)	303.7	292.8	Gzhelian	Stephanian	303.7	298.9
6	Astreptorhachis	KAS	GZE	307	298.9	Gzhelian	Stephanian	303.7	298.9
6	Lafonius					Gzhelian		303.7	298.9
7	Erpetonyx					Gzhelian		303.7	298.9
8	Macromerion	KAS	KAS	307	303.7	Stephanian B		304.8	303.4
6	Montcellia	GZE		303.7	298.9	Stephanian B		304.8	301.2
6	Sauravus	KAS	SAK(l)	307	292.8	Stephanian B		304.8	301.2
1	Myxineidus					Stephanian B		304.8	303.4
6	Dawsonerpeton					Stephanian B		304.8	303.4
6	Porierpeton					Stephanian B		304.8	303.4
6	Boii	KAS		307	303.7	Stephanian B		304.8	303.4
8	Haptodus	KAS	SAK(u)	307	290.1	Missourian		305.9	303.4
8	Ianthasaurus	KAS	KAS	307	303.7	Missourian		305.9	303.4
8	Ianthodon					Missourian		305.9	303.4
8	Kenomagnathus					Missourian		305.9	303.4
8	Tenuacaptor					Missourian		305.9	303.4
8	Xyrospondylus					Missourian		305.9	303.4
6	Anconastes	ASS(l)		298.9	297.2	Missourian		305.9	298.9
6	Eryops	ART(l)		290.1	284.7	Missourian	Gzhelian	305.9	303.4
6	Branchierpeton	ASS(l)	ASS(u)	298.9	295.5	Stephanian A		305.9	303.4
6	Actiobates	KAS		307	303.7	Missourian	Stephanian	305.9	303.4
6	Diplocaulus	KAS	WUC(u)	307	254.2	Missourian		305.9	303.4
6	Limnoscelis	KAS	ASS(l)	307	297.2	Missourian		305.9	303.4
6	Desmatodon	KAS	GZE	307	298.9	Missourian		305.9	303.4
6	Cricotus	KAS		307	303.7	Missourian		305.9	303.4
7	Petrolacosaurus	KAS	KAS	307	303.7	Missourian		305.9	303.4
8	Stereorhachis	GZE	GZE	303.7	298.9	Stephanian		307	298.9
8	Milosaurus					Stephanian	Virgilian	307	298.9
4	Amblypterus					Stephanian		307	298.9
6	Glaukerpeton					Stephanian		307	298.9
6	Limnopus					Late Pennsylvanian		307	298.9

6	Diploceraspis	ASS(l)	SAK(u)	298.9	290.1	Stephanian	307	298.9
6	Neopteroplax	KAS	GZE	307	298.9	Stephanian	307	298.9
6	Megamolgothis					Stephanian	307	298.9
1	Euprioniodina					Kasimovian	307	303.7
1	Subprioniodus					Kasimovian	307	303.7
3	Bobbodus					Kasimovian	307	303.7
3	Campyloprion					Kasimovian	307	303.7
3	Cooperodon					Kasimovian	307	303.7
3	Fissodus					Kasimovian	307	303.7
3	Fortscottella					Kasimovian	307	303.7
3	Kirkella					Kasimovian	307	303.7
3	Moreyella					Kasimovian	307	303.7
3	Romerodus					Kasimovian	307	303.7
4	Lawrenciella					Kasimovian	307	303.7
4	Palaeoniscus					Kasimovian	307	303.7
6	Branchiosaurus	MOS(u)	ASS(u)	311.1	295.5	Westphalian D	311.5	306.95
6	Adamanterpeton	MOS(u)		311.1	307	Westphalian D	311.5	306.95
6	Amphibamus	MOS(u)		311.1	307	Westphalian D	311.5	306.95
6	Capetus	MOS(u)		311.1	307	Westphalian D	311.5	306.95
6	Erpetosaurus	MOS(u)		311.1	307	Westphalian D	311.5	306.95
6	Limnogyrinus	MOS(u)		311.1	307	Westphalian D	311.5	306.95
6	Mordex	MOS(u)		311.1	307	Westphalian D	311.5	306.95
6	Platyrhinops	MOS(u)		311.1	307	Westphalian D	311.5	306.95
6	Eumicrerpeton					Westphalian D	311.5	306.95
6	Limnerpeton					Westphalian D	311.5	306.95
6	Macrerpeton					Westphalian D	311.5	306.95
6	Macromerium					Westphalian D	311.5	306.95
6	Nyranerpeton					Westphalian D	311.5	306.95
6	Potamochoston					Westphalian D	311.5	306.95
6	Sparagmites					Westphalian D	311.5	306.95
6	Brachydictes	MOS(u)	KUN(u)	311.1	272.3	Westphalian D	311.5	306.95
6	Sauroplorea	MOS(u)	SAK(u)	311.1	290.1	Westphalian D	311.5	306.95
6	Scincosaurus	MOS(u)	KAS	311.1	303.7	Westphalian D	311.5	306.95
6	Crinodon	MOS(u)		311.1	307	Westphalian D	311.5	306.95
6	Diplovertebron	MOS(u)		311.1	307	Westphalian D	311.5	306.95
6	Eusauroplorea	MOS(u)		311.1	307	Westphalian D	311.5	306.95
6	Gephyrostegus	MOS(u)		311.1	307	Westphalian D	311.5	306.95
6	Hyloplesion	MOS(u)		311.1	307	Westphalian D	311.5	306.95
6	Leptophractus	MOS(u)		311.1	307	Westphalian D	311.5	306.95
6	Microbrachis	MOS(u)		311.1	307	Westphalian D	311.5	306.95
6	Molgothis	MOS(u)		311.1	307	Westphalian D	311.5	306.95
6	Nummulosaurus	MOS(u)		311.1	307	Westphalian D	311.5	306.95
6	Odonterpeton	MOS(u)		311.1	307	Westphalian D	311.5	306.95
6	Pleuroptyx	MOS(u)		311.1	307	Westphalian D	311.5	306.95
6	Pseudophragmodontia	MOS(u)		311.1	307	Westphalian D	311.5	306.95
6	Solenodontosaurus	MOS(u)		311.1	307	Westphalian D	311.5	306.95
6	Sparodus	MOS(u)		311.1	307	Westphalian D	311.5	306.95
6	Spondylterpeton	MOS(u)		311.1	307	Westphalian D	311.5	306.95
6	Tuditonus	MOS(u)		311.1	307	Westphalian D	311.5	306.95
6	Adenoderma					Westphalian D	311.5	306.95
6	Infernovenator					Westphalian D	311.5	306.95
6	Orthocosta					Westphalian D	311.5	306.95

6	Paramicrobrachis				Westphalian D	311.5	306.95	
6	Seelya				Westphalian D	311.5	306.95	
7	Anthracodromeus	MOS(u)	311.1	307	Westphalian D	311.5	306.95	
7	Brouffia	MOS(u)	311.1	307	Westphalian D	311.5	306.95	
7	Cephalerpeton	MOS(u)	311.1	307	Westphalian D	311.5	306.95	
7	Coelostegus	MOS(u)	311.1	307	Westphalian D	311.5	306.95	
6	Colosteus	MOS(u)	311.1	307	Desmoinesian	313.8	305.9	
6	Stegops	MOS(u)	311.1	307	Desmoinesian	313.8	305.9	
6	Diceratosaurus	MOS(u)	311.1	307	Desmoinesian	313.8	305.9	
6	Cochleosaurus	MOS(u)	311.1	307	Westphalian C	314.6	306.95	
6	Carbonherpeton				Westphalian C Westphalia	314.6	306.95	
7	Limnostygis	MOS(u)	311.1	307	Westphalian C Westphalia	314.6	306.95	
7	Paleothyris	MOS(u)	311.1	307	Westphalian C Westphalia	314.6	306.95	
8	Clepsydraps	KAS	KAS	307	303.7	Westphalian C Westphalia	314.6	306.95
8	Archaeothyris	MOS(u)	311.1	307	Westphalian C Westphalia	314.6	306.95	
8	Echinerpeton				Westphalian C Westphalia	314.6	306.95	
1	Sweetina				Vereian Myachkovi	314.6	306.95	
5	Megapleuron				Middle Pennsylvanian	314.6	306.95	
1	Diplognathodus				Vereian Kashirian	314.6	311.45	
1	Neogondolella				Vereian Kashirian	314.6	311.45	
3	Oniscina				Westphalian C	314.6	311.45	
6	Coloraderpeton	KAS	307	303.7	Moscovian	315.2	307	
6	Trihecaton	KAS	307	303.7	Moscovian	315.2	307	
6	Diabloroter				Moscovian	315.2	307	
1	Gondolella				Moscovian	315.2	307	
1	Mayomyzon				Moscovian	315.2	307	
3	Acandylacanthus				Moscovian	315.2	307	
3	Agassizodus				Moscovian	315.2	307	
3	Bandringa				Moscovian	315.2	307	
3	Bethacanthus				Moscovian	315.2	307	
3	Bythiacanthus				Moscovian	315.2	307	
3	Caseodus				Moscovian	315.2	307	
3	Cervifurca				Moscovian	315.2	307	
3	Cyrtonodus				Moscovian	315.2	307	
3	Dabasacanthus				Moscovian	315.2	307	
3	Danaea				Moscovian	315.2	307	
3	Euctenius				Moscovian	315.2	307	
3	Eugeneodus				Moscovian	315.2	307	
3	Fadenia				Moscovian	315.2	307	
3	Gilliodus				Moscovian	315.2	307	
3	Glikmanius				Moscovian	315.2	307	
3	Iniopera				Moscovian	315.2	307	
3	Iniopteryx				Moscovian	315.2	307	
3	Jimpohlia				Moscovian	315.2	307	
3	Ornithoprion				Moscovian	315.2	307	
3	Pleuroplax				Moscovian	315.2	307	
3	Promexyele				Moscovian	315.2	307	
3	Sibyrrhynchus				Moscovian	315.2	307	
3	Similihariotta				Moscovian	315.2	307	
3	Stemmatias				Moscovian	315.2	307	
3	Stethacanthulus				Moscovian	315.2	307	
5	Sagenodus				Moscovian	315.2	307	

6	Cincosaurus				Westphalian	318.1	306.95	
6	Notalacerta				Westphalian	318.1	306.95	
6	Ctnerpeton	MOS(u)	311.1	307	Westphalian	318.1	306.95	
6	Attenosaurus				Westphalian	318.1	306.95	
6	Quadropedia				Westphalian	318.1	306.95	
6	Matthewichnus				Westphalian	318.1	306.95	
6	Nanopus				Westphalian	318.1	306.95	
6	Isodectes	MOS(u)	311.1	307	Westphalian	318.1	306.95	
6	Kyrinion	BSH(u)	319.2	315.2	Westphalian	318.1	306.95	
6	Phlegethontia	MOS(u)	KAS	311.1	303.7	Westphalian A Westphalia	318.1	314.6
6	Ptyonius	MOS(u)	311.1	307	Westphalian A Westphalia	318.1	314.6	
6	Ricnodon	MOS(u)	311.1	307	Westphalian A	318.1	314.6	
6	Asaphstera	BSH(u)	319.2	315.2	Westphalian A	318.1	314.6	
6	Dolichosoma	BSH(u)	319.2	315.2	Westphalian A	318.1	314.6	
6	Elfridia	BSH(u)	319.2	315.2	Westphalian A Westphalia	318.1	314.6	
6	Hylerpeton	BSH(u)	319.2	315.2	Westphalian A	318.1	314.6	
6	Leiocephalikon	BSH(u)	319.2	315.2	Westphalian A	318.1	314.6	
6	Lepterpeton	BSH(u)	319.2	315.2	Westphalian A	318.1	314.6	
6	Novascoticus	BSH(u)	319.2	315.2	Westphalian A	318.1	314.6	
6	Trachystegos	BSH(u)	319.2	315.2	Westphalian A	318.1	314.6	
6	Urocordylus	BSH(u)	319.2	315.2	Westphalian A	318.1	314.6	
6	Archerpeton				Westphalian A	318.1	314.6	
6	Arizonerpeton				Westphalian A Westphalia	318.1	314.6	
6	Anthracosaurus	BSH(u)	MOS(u)	319.2	307	Westphalian A	318.1	314.6
6	Calligenethlon	BSH(u)	319.2	315.2	Westphalian A	318.1	314.6	
6	Palaeoherpeton	BSH(u)	319.2	315.2	Westphalian A	318.1	314.6	
6	Brukererpeton	BSH(l)	323.2	319.2	Marsdenian	318.1	314.6	
6	Ichthyerpeton	BSH(u)	319.2	315.2	Westphalian A	318.1	314.6	
6	Dendrerpeton	BSH(u)	319.2	315.2	Westphalian A	318.1	314.6	
6	Eugyrinus	BSH(u)	319.2	315.2	Westphalian A	318.1	314.6	
6	Procochleosaurus	BSH(u)	319.2	315.2	Westphalian A	318.1	314.6	
6	Dendrysekos				Westphalian A	318.1	314.6	
6	Platystegos				Westphalian A	318.1	314.6	
7	Hylonomus	BSH(u)	BSH(u)	319.2	315.2	Westphalian A	318.1	314.6
8	Protoclepsydrops				Westphalian A	318.1	314.6	
1	Myxinikela				Westphalian	318.1	306.95	
1	Undichna				Westphalian	318.1	306.95	
5	Rhizodopsis				Westphalian Vereian	318.1	313.8	
1	Idiognathodus				Westphalian A Westphalia	318.1	314.6	
1	Multidentodus				Early Pennsylvanian	318.1	314.6	
3	Acanthorhachis				Westphalian A	318.1	314.6	
5	Gnathorhiza				Westphalian A Westphalia	318.1	314.6	
6	Lysorophus	KAS	SAK(u)	307	290.1	Bashkirian	323.2	315.3
6	Oestocephalus	BSH(u)	MOS(u)	319.2	307	Bashkirian	323.2	315.3
6	Keraterpeton	BSH(u)	MOS(l)	319.2	311.1	Bashkirian	323.2	315.3
6	Baphetes	BSH(u)	MOS(u)	319.2	307	Bashkirian	323.2	315.2
6	Megalocephalus	BSH(u)	MOS(u)	319.2	307	Bashkirian	323.2	315.2
6	Utaherpeton	BSH(l)	323.2	319.2	Bashkirian Westphalia	323.2	319.2	
1	Declinognathodus				Bashkirian	323.2	315.2	
1	Idiognathoides				Bashkirian	323.2	315.2	
3	Edestus				Bashkirian	323.2	315.2	
3	Heslerodus				Bashkirian	323.2	315.2	

3	Lagarodus				Bashkirian	323.2	315.2
3	Pleuracanthus				Bashkirian	323.2	315.2
3	Pleuroodus				Bashkirian	323.2	315.2
3	Triodus				Bashkirian	323.2	315.2
3	Utahacanthus				Bashkirian	323.2	315.2
4	Bourbonnella				Bashkirian	323.2	315.2
4	Gunterichthys				Bashkirian	323.2	315.2
4	Gyrolepis				Bashkirian	323.2	315.2
4	Spinofacia				Bashkirian	323.2	315.2
5	Coelacanthus				Bashkirian	323.2	315.2
X	Centrodus				Pennsylvanian	323.2	298.9
x	Chelyophorus				Pennsylvanian	323.2	298.9
x	Chirotherium				Pennsylvanian	323.2	298.9
x	Eurynotus				Pennsylvanian	323.2	298.9
X	Pristodus				Pennsylvanian	323.2	298.9
X	Protopirata				Pennsylvanian	323.2	298.9
x	Steganoposaurus				Pennsylvanian	323.2	298.9
6	Adelospondylus	BSH(u)		319.2 315.2	Pendleian	326.4	318.1
6	Acherontiscus	SPK(l)	BSH(u)	330.9 315.2	Pendleian	326.4	318.1
6	Proterogyrinus	SPK(l)	SPK(u)	330.9 327	Arnsbergian	326.4	318.1
6	Eoherpeton	VIS(u)		336.1 330.9	Pendleian	326.4	318.1
6	Caerorhachis	SPK(l)		330.9 327	Pendleian	326.4	318.1
1	Hardistiella				Arnsbergian	326.4	318.1
3	Belantsea				Arnsbergian	326.4	318.1
3	Damocles				Arnsbergian	326.4	318.1
3	Debeerius				Arnsbergian	326.4	318.1
3	Delphyodontos				Arnsbergian	326.4	318.1
3	Falcatus				Arnsbergian	326.4	318.1
3	Guttarensis				Pendleian	326.4	318.1
3	Harpagofututor				Arnsbergian	326.4	318.1
3	Janassa				Arnsbergian	326.4	318.1
3	Listracanthus				Arnsbergian	326.4	318.1
3	Netsepoye				Arnsbergian	326.4	318.1
3	Ozarcus				Pendleian	326.4	318.1
3	Papilionichthys				Arnsbergian	326.4	318.1
3	Petalorhynchus				Arnsbergian	326.4	318.1
3	Polyrhizodus				Arnsbergian	326.4	318.1
3	Rainerichthys				Arnsbergian	326.4	318.1
3	Siksika				Arnsbergian	326.4	318.1
3	Squatinactis				Arnsbergian	326.4	318.1
4	Aesopichthys				Arnsbergian	326.4	318.1
4	Beagiascus				Arnsbergian	326.4	318.1
4	Cyranorhis				Arnsbergian	326.4	318.1
4	Frederichthys				Pendleian	326.4	318.1
4	Lineagruan				Arnsbergian	326.4	318.1
4	Paratarrasius				Arnsbergian	326.4	318.1
4	Proceramala				Arnsbergian	326.4	318.1
4	Wendyichthys				Arnsbergian	326.4	318.1
5	Allenypterus				Arnsbergian	326.4	318.1
5	Caridosuctor				Arnsbergian	326.4	318.1
5	Hadronector				Arnsbergian	326.4	318.1
5	Lochmocercus				Arnsbergian	326.4	318.1

5	Polyosteorhynchus					Arnsbergian		326.4	318.1
6	Pholiderpeton	SPK(l)	BSH(u)	330.9	315.2	Serpukhovian	Bashkirian	330.9	315.2
6	Greererpeton	SPK(u)	BSH(l)	327	319.2	Serpukhovian		330.9	323.2
6	Ophiderpeton	VIS(u)	BSH(u)	336.1	315.2	Brigantian		336	326.4
6	Silvanerpeton	VIS(u)		336.1	330.9	Brigantian		336	326.4
6	Westlothiana	VIS(u)		336.1	330.9	Brigantian		336	326.4
6	Balanerpeton	VIS(u)		336.1	330.9	Brigantian		336	326.4
6	Crassigyrinus	VIS(u)	SPK(l)	336.1	292.8	Brigantian		336	326.4
6	Loxomma	VIS(u)	BSH(u)	336.1	315.2	Brigantian		336	326.4
6	Doragnathus	SPK(l)		330.9	327	Brigantian		336	326.4
3	Carcharopsis					Brigantian		336	326.4
3	Holmesella					Brigantian		336	326.4
3	Tristychius					Brigantian		336	326.4
5	Rhizodus					Brigantian		336	326.4
6	Casineria	VIS(u)		336.1	330.9	Asbian		339.4	336
6	Deltaherpeton	VIS(m)		341.5	336.1	Asbian		339.4	336
6	Sigournea	VIS(m)		341.5	336.1	Asbian		339.4	336
6	Whatcheeria	VIS(m)		341.5	336.1	Asbian		339.4	336
3	Reesodus					Asbian	Brigantian	339.4	326.4
3	Cynopodius					Asbian		339.4	336
5	Tranodis					Asbian		339.4	336
x	Adetognathus					Chesterian		339.4	318.1
x	Kalops					Chesterian		339.4	318.1
x	Streptognathodus					Chesterian		339.4	318.1
6	Lethiscus	VIS(m)		341.5	336.1	Holkerian		342.8	336
3	Cladodus					Meramecian		345	336
3	Denaea					Arundian	Holkerian	345	339.4
1	Kladognathus					Arundian		345	342.8
1	Synclydagnathus					Arundian		345	342.8
1	Vogelgnathus					Arundian		345	342.8
3	Antliodus					Arundian		345	342.8
3	Chondrenchelys					Arundian		345	342.8
3	Deltoptychius					Arundian		345	342.8
3	Goodrichthys					Arundian		345	342.8
3	Onychoselache					Arundian		345	342.8
4	Canobius					Arundian		345	342.8
4	Cheirodopsis					Arundian		345	342.8
4	Cycloptychius					Arundian		345	342.8
4	Elonichthys					Arundian		345	342.8
4	Holurus					Arundian		345	342.8
4	Mesopoma					Arundian		345	342.8
4	Paramesolepis					Arundian		345	342.8
4	Phanerosteon					Arundian		345	342.8
4	Platysomus					Arundian		345	342.8
4	Styracopterus					Arundian		345	342.8
4	Tarrasius					Arundian		345	342.8
5	Megalichthys					Arundian		345	342.8
5	Strepsodus					Arundian		345	342.8
3	Psephodus					Chadian		345.3	345
6	Spathicephalus	SPK(l)		330.9	327	Visean		346.7	330.9
6	Antlerpeton					Visean		346.7	330.9
6	Ossinodus					Visean		346.7	330.9

3	Cooleyella				Visean	346.7	330.9
3	Venustodus				Visean	346.7	330.9
x	Neognathodus				Visean Serpukhov	346.7	323.2
6	Pederpes	TOU(u)	352.8	346.7	Ivorian	353.8	345.3
3	Chomatodus				Osagean	353.8	342.8
3	Cochliodus				Osagean	353.8	342.8
3	Deltodus				Osagean	353.8	342.8
3	Sandalodus				Osagean	353.8	342.8
1	Scaliognathus				Ivorian	353.8	345.3
3	Scoliorhiza				Ivorian	353.8	345.3
6	Aytonerpeton				Tournaisian	358.9	346.7
6	Diplorodus				Tournaisian	358.9	346.7
6	Koilops				Tournaisian	358.9	346.7
6	Mesanerpeton				Tournaisian	358.9	346.7
6	Ossirarus				Tournaisian	358.9	346.7
6	Perittodus				Tournaisian	358.9	346.7
3	Erismacanthus				Early Mississippian	358.9	345.3
3	Homacanthus				Early Mississippian	358.9	345.3
3	Physonemus				Early Mississippian	358.9	345.3
3	Saivodus				Early Mississippian	358.9	345.3
5	Barameda				Tournaisian	358.9	346.7
5	Ctenodus				Tournaisian	358.9	346.7
5	Limanichthys				Tournaisian	358.9	346.7
1	Cavusgnathus				Tournaisian	358.9	346.7
1	Eotaphrus				Tournaisian	358.9	346.7
1	Hindeodus				Tournaisian	358.9	346.7
1	Idioprioniodus				Tournaisian	358.9	346.7
1	Lochriea				Tournaisian	358.9	346.7
1	Mestognathus				Tournaisian	358.9	346.7
1	Patrognathus				Tournaisian	358.9	346.7
3	Adamantina				Tournaisian	358.9	346.7
3	Bransonella				Tournaisian	358.9	346.7
3	Lissodus				Tournaisian	358.9	346.7
4	Acrolepis				Tournaisian	358.9	346.7
3	Psammodus				Kinderhookian	358.9	353.8
3	Thrinacodus				Hastarian	358.9	353.8
4	Rhadinichthys				Kinderhookian	358.9	353.8
X	Acondylacanthus				Mississippian	358.9	323.2
X	Amelacanthus				Mississippian	358.9	323.2
X	Asteroptychius				Mississippian	358.9	323.2
x	Batrachichnus				Mississippian	358.9	323.2
x	Chirodus				Mississippian	358.9	323.2
X	Copodus				Mississippian	358.9	323.2
X	Cosmacanthus				Mississippian	358.9	323.2
X	Ctenoptychius				Mississippian	358.9	323.2
X	Dicrenodus				Mississippian	358.9	323.2
x	Dromopus				Mississippian	358.9	323.2
X	Eunemacanthus				Mississippian	358.9	323.2
X	Glossodus				Mississippian	358.9	323.2
X	Helodus				Mississippian	358.9	323.2
X	Lispacanthus				Mississippian	358.9	323.2
x	Mesolepis				Mississippian	358.9	323.2

X	Mesolophodus				Mississippian		358.9	323.2
X	Oracanthus				Mississippian		358.9	323.2
X	Orodus				Mississippian		358.9	323.2
X	Paecilodus				Mississippian		358.9	323.2
X	Peripristis				Mississippian		358.9	323.2
X	Petalodus				Mississippian		358.9	323.2
X	Petrodus				Mississippian		358.9	323.2
X	Platyxystrodus				Mississippian		358.9	323.2
X	Poecilodus				Mississippian		358.9	323.2
X	Pristicladodus				Mississippian		358.9	323.2
x	Pseudobradypus				Tournaisian	Gzhelian	358.9	298.9
X	Stichacanthus				Mississippian		358.9	323.2
X	Streblodus				Mississippian		358.9	323.2
x	Tantalognathus				Tournaisian	Visean	358.9	330.9
x	Temnocorpichnus				Mississippian		358.9	323.2
6	Densignathus	FAM(u)	363.3	358.9	Late Famennian		364.7	360.7
6	Hynerpeton	FAM(u)	363.3	358.9	Late Famennian		364.7	360.7
6	Tulerpeton	FAM(u)	363.3	358.9	Late Famennian		364.7	360.7
5	Adelargo				Late Famennian		364.7	360.7
5	Dipterus				Late Famennian		364.7	360.7
5	Langlieria				Late Famennian		364.7	360.7
1	Antognathus				Late Famennian		364.7	360.7
1	Apatognathus				Late Famennian		364.7	360.7
1	Protognathodus				Late Famennian		364.7	360.7
3	Ageleodus				Late Famennian		364.7	360.7
1	Scaphignathus				Middle Famennian		370.6	364.7
6	Sinostega	FAM(u)	363.3	358.9	Famennian		372.2	358.9
6	Ventastega	FAM(u)	363.3	358.9	Famennian		372.2	358.9
6	Acanthostega	FAM(m)	367.8	363.3	Famennian		372.2	358.9
6	Ichthyostega	FAM(m)	367.8	363.3	Famennian		372.2	358.9
6	Metaxygnathus	FAM(m)	367.8	363.3	Famennian		372.2	358.9
6	Parmastega				Famennian		372.2	358.9
5	Aptorhynchus				Famennian		372.2	358.9
5	Chagrinia				Famennian		372.2	358.9
5	Ganorhynchus				Famennian		372.2	358.9
5	Holoptychus				Famennian		372.2	358.9
5	Serenichthys				Famennian		372.2	358.9
5	Soederberghia				Famennian		372.2	358.9
5	Ymeria				Famennian		372.2	358.9
1	Clydagnathus				Famennian		372.2	358.9
1	Priscomyzon				Famennian		372.2	358.9
1	Pseudopolygnathus				Famennian		372.2	358.9
3	Cladoselache				Famennian		372.2	358.9
3	Dunkleosteus				Famennian		372.2	358.9
3	Sphenacanthus				Famennian		372.2	358.9
3	Stethacanthus				Famennian		372.2	358.9
3	Symmorium				Famennian		372.2	358.9
3	Tamiobatis				Famennian		372.2	358.9
4	Cuneognathus				Famennian		372.2	358.9
5	Jakubsonia				Early Famennian		376.1	370.6
1	Alternognathus				Early Famennian		376.1	370.6
1	Bispathodus				Early Famennian		376.1	370.6

1	Siphonodella				Early Famennian	376.1	370.6
6	Elginerpeton	FRS(u)	375.6	372.2	Late Frasnian	379.5	376.1
1	Cryptotaxis				Late Frasnian	379.5	376.1
3	Protacrodus				Late Frasnian	379.5	376.1
5	Rhinodipterus				Middle Frasnian	382.4	379.5
5	Adololopas				Frasnian	382.7	372.2
5	Eusthenopteron				Frasnian	382.7	372.2
5	Fleurantia				Frasnian	382.7	372.2
5	Osteolepis				Frasnian	382.7	372.2
5	Scaumenacia				Frasnian	382.7	372.2
5	Thursius				Frasnian	382.7	372.2
5	Xeradipterus				Frasnian	382.7	372.2
6	Obruchevichthys	FAM(u)	363.3	358.9	Frasnian	382.7	372.2
6	Elpistostege	FRS(m)	379.3	375.6	Frasnian	382.7	372.2
6	Tiktaalik	FRS(l)	382.7	379.3	Frasnian	382.7	372.2
5	Conchodus				Late Devonian	382.7	358.9
5	Hyneria				Late Devonian	382.7	358.9
3	Macrodonotophion				Late Devonian	382.7	358.9
3	Plesioselachus				Frasnian Famennian	382.7	358.9
1	Avignathus				Frasnian	382.7	372.2
1	Euphanerops				Frasnian	382.7	372.2
1	Polylophodonta				Frasnian	382.7	372.2
1	Youngquistognathus				Frasnian	382.7	372.2
3	Camuropiscis				Frasnian	382.7	372.2
3	Diplacanthus				Frasnian	382.7	372.2
3	Holonema				Frasnian	382.7	372.2
3	Homalacanthus				Frasnian	382.7	372.2
3	Triazeugacanthus				Frasnian	382.7	372.2
4	Cheirolepis				Frasnian	382.7	372.2
5	Glyptolepis				Early Frasnian	383.7	382.4
5	Holoptychius				Early Frasnian	383.7	382.4
5	Laccognathus				Early Frasnian	383.7	382.4
5	Panderichthys				Early Frasnian	383.7	382.4
1	Ancyrognathus				Early Frasnian	383.7	382.4
2	Oredezhosteus				Early Frasnian	383.7	382.4
3	Atopacanthus				Early Frasnian	383.7	382.4
3	Devononchus				Early Frasnian	383.7	382.4
3	Haplacanthus				Early Frasnian	383.7	382.4
3	Manberodus				Early Frasnian	383.7	382.4
3	Plourdosteus				Early Frasnian	383.7	382.4
4	Raynerius				Early Frasnian	383.7	382.4
5	Barwickia				Late Givetian	385.2	382.7
5	Dipnotuberculus				Late Givetian	385.2	382.7
5	Gavinia				Late Givetian	385.2	382.7
5	Howidipterus				Late Givetian	385.2	382.7
6	Livoniana	GIV(u)	388.1	383.7	Late Givetian	385.2	382.7
5	lowadipterus				Givetian	387.7	382.7
5	Miguashaia				Givetian	387.7	382.7
1	Ancyrodella				Givetian	387.7	382.7
1	Ancyrolepis				Givetian	387.7	382.7
1	Dinodus				Givetian	387.7	382.7
1	Elsonella				Givetian	387.7	382.7

1	Klapperina				Givetian		387.7	382.7
1	Mesotaxis				Givetian		387.7	382.7
1	Schmidtognathus				Givetian		387.7	382.7
1	Tripodellus				Givetian		387.7	382.7
3	Melanodus				Givetian		387.7	382.7
3	Omalodus				Givetian		387.7	382.7
3	Phoebodus				Givetian		387.7	382.7
3	Ptyctodopsis				Givetian		387.7	382.7
3	Ptyctodus				Givetian		387.7	382.7
3	Rhynchodus				Givetian		387.7	382.7
4	Stegotrachelus				Givetian		387.7	382.7
4	Moythomasia				Late Givetian	Early Frasn	388.1	382.4
3	Dinichthys				Early Givetian		388.1	383.7
5	Kenichthys	Emsian, Late	402.5	391.9	Eifelian	Givetian	393.3	382.7
5	Sinodipterus	Emsian, Late	402.5	391.9	Eifelian		393.3	387.7
5	Onychodus				Eifelian		393.3	387.7
5	Pinnalongus				Eifelian		393.3	387.7
1	Angulodus				Eifelian		393.3	387.7
1	Mehlina				Eifelian		393.3	387.7
1	Tortodus				Eifelian		393.3	387.7
2	Blieckaspis				Eifelian		393.3	387.7
2	Panamintaspis				Eifelian		393.3	387.7
2	Psammolepis				Eifelian		393.3	387.7
2	Psammosteus				Eifelian		393.3	387.7
2	Pycnosteus				Eifelian		393.3	387.7
2	Schizosteus				Eifelian		393.3	387.7
2	Tartuosteus				Eifelian		393.3	387.7
3	Asterolepis				Eifelian		393.3	387.7
1	Sannemannia				Late Emsian		402.5	391.9
1	Steptotaxis				Late Emsian		402.5	391.9
5	Amadeodipterus				Emsian	Eifelian	407.6	387.7
5	Luckeus				Emsian	Eifelian	407.6	387.7
5	Muranjilepis				Emsian	Eifelian	407.6	387.7
5	Stomiahykus				Emsian	Eifelian	407.6	387.7
3	Ctenacanthus				Emsian	Eifelian	407.6	387.7
3	Actinolepis				Emsian		407.6	393.3
3	Anarthraspis				Emsian		407.6	393.3
3	Bryantolepis				Emsian		407.6	393.3
3	Bulbocanthus				Emsian		407.6	393.3
3	Coccosteus				Emsian		407.6	393.3
3	Gyracanthus				Emsian		407.6	393.3
3	Orthacanthus				Emsian		407.6	393.3
3	Pterichthyodid				Emsian		407.6	393.3
5	Cathlorhynchus				Early Emsian		409.1	402.5
5	Dipnorhynchus				Early Emsian		409.1	402.5
5	Porolepis				Early Emsian		409.1	402.5
2	Drepanaspis				Early Emsian		409.1	402.5
2	Rhinopteraspis				Early Emsian		409.1	402.5
3	Acanthodes				Early Emsian		409.1	402.5
3	Gemuendenaspis				Early Emsian		409.1	402.5
3	Gemuendina				Early Emsian		409.1	402.5
3	Lunaspis				Early Emsian		409.1	402.5

3	Nessariostoma		Early Emsian	409.1	402.5	
3	Ohioaspis		Early Emsian	409.1	402.5	
3	Paraplesiobatis		Early Emsian	409.1	402.5	
3	Pseudopetalichthys		Early Emsian	409.1	402.5	
3	Stuertzaspis		Early Emsian	409.1	402.5	
5	Ichnomylax		Pragian	Early Emsian	410.8	402.5
5	Qingmenodus		Pragian	410.8	407.6	
5	Tungsenia		Pragian	410.8	407.6	
3	Protodus		Pragian	Emsian	410.8	393.3
3	Romundina		Pragian	Emsian	410.8	393.3
2	Brachipteraspis		Pragian	410.8	407.6	
2	Gigantaspis		Pragian	410.8	407.6	
2	Miltaspis		Pragian	410.8	407.6	
2	Zychaspis		Pragian	410.8	407.6	
1	Polygnathus		Helderberg	Early Emsian	416	402.5
2	Errivaspis		Ditton	416	412.3	
5	Achoania		Lochkovian	419.2	410.8	
5	Diabolepis		Lochkovian	419.2	410.8	
5	Uranolophus		Lochkovian	419.2	410.8	
5	Youngolepis		Lochkovian	419.2	410.8	
3	Mesacanthus		Lochkovian	Pragian	419.2	407.6
3	Podoliacanthus		Lochkovian	Pragian	419.2	407.6
2	Allocryptaspis		Lochkovian	Pragian	419.2	407.6
2	Ukrainaspis		Lochkovian	Pragian	419.2	407.6
2	Zascinaspis		Lochkovian	Pragian	419.2	407.6
3	Aethaspis		Lochkovian	419.2	410.8	
3	Heightingtonaspis		Lochkovian	419.2	410.8	
3	Nodonchus		Lochkovian	419.2	410.8	
3	Plataspis		Lochkovian	419.2	410.8	
3	Plectrodus		Lochkovian	419.2	410.8	
3	Simblaspis		Lochkovian	419.2	410.8	
3	Wheathillaspis		Lochkovian	419.2	410.8	
3	Yunnanolepis		Lochkovian	419.2	410.8	
3	Zhanjilepis		Lochkovian	419.2	410.8	
1	Ancyrodelloides		Lochkovian	419.2	410.8	
1	Caudicriodus		Lochkovian	419.2	410.8	
1	Eognathodus		Lochkovian	419.2	410.8	
1	Flajsella		Lochkovian	419.2	410.8	
1	Kimognathus		Lochkovian	419.2	410.8	
1	Lanea		Lochkovian	419.2	410.8	
1	Latericriodus		Lochkovian	419.2	410.8	
1	Neopanderodus		Lochkovian	419.2	410.8	
1	Pandorinella		Lochkovian	419.2	410.8	
1	Pandorinellina		Lochkovian	419.2	410.8	
1	Rotundacodina		Lochkovian	419.2	410.8	
2	Asiaspis	Pragian	Lochkovian	419.2	410.8	
2	Althaspis		Lochkovian	419.2	410.8	
2	Anglaspis		Lochkovian	419.2	410.8	
2	Aporemaspis		Lochkovian	419.2	410.8	
2	Benneviaspis		Lochkovian	419.2	410.8	
2	Boreania		Lochkovian	419.2	410.8	
2	Canonia		Lochkovian	419.2	410.8	

2	Cardipeltis	Lochkovian	419.2	410.8
2	Corveolepis	Lochkovian	419.2	410.8
2	Cosmaspis	Lochkovian	419.2	410.8
2	Cowielepis	Lochkovian	419.2	410.8
2	Ctenaspis	Lochkovian	419.2	410.8
2	Dinaspidella	Lochkovian	419.2	410.8
2	Europrotaspis	Lochkovian	419.2	410.8
2	Irregulareaspis	Lochkovian	419.2	410.8
2	Kiaeraspis	Lochkovian	419.2	410.8
2	Lampraspis	Lochkovian	419.2	410.8
2	Larnovaspis	Lochkovian	419.2	410.8
2	Lepidaspis	Lochkovian	419.2	410.8
2	Nikolivia	Lochkovian	419.2	410.8
2	Podolaspis	Lochkovian	419.2	410.8
2	Poraspis	Lochkovian	419.2	410.8
2	Protaspis	Lochkovian	419.2	410.8
2	Protopteraspis	Lochkovian	419.2	410.8
2	Putoranaspis	Lochkovian	419.2	410.8
2	Steinaspis	Lochkovian	419.2	410.8
2	Tareyaspis	Lochkovian	419.2	410.8
2	Tesseraspis	Lochkovian	419.2	410.8
2	Turinia	Lochkovian	419.2	410.8
2	Unarkaspis	Lochkovian	419.2	410.8
2	Weigeltaspis	Lochkovian	419.2	410.8
X	Antarctilamna	Early Devonian	419.2	393.3
x	Euthacanthus	Early Devonian	419.2	393.3
1	Procephalaspis	Paadla	422.9	419.2
3	Climatius	Ohesaare	423	419.2
3	Nerepisacanthus	Pridoli	423	419.2
4	Lophosteus	Ohesaare	423	419.2
1	Amydrotaxis	Pridoli	423	419.2
1	Dvorakia	Pridoli	423	419.2
1	Ozarcodina	Pridoli	423	419.2
1	Thyestes	Pridoli	423	419.2
2	Corvaspis	Pridoli	423	419.2
2	Ctenopleuron	Pridoli	423	419.2
2	Goniporus	Pridoli	423	419.2
2	Katoporodus	Pridoli	423	419.2
2	Strosipherus	Ohesaare	423	419.2
2	Tylodus	Ohesaare	423	419.2
x	Tannuaspis	Pridoli Helderberg	423	391.9
5	Ligulalepis	Ludfordian	425.6	423
3	Onchus	Ludfordian	425.6	423
1	Erika	Ludfordian	425.6	423
1	Icriodus	Ludfordian	425.6	423
1	Pelekysgnathus	Ludfordian	425.6	423
1	Silurognathus	Ludfordian	425.6	423
1	Zieglerodina	Ludfordian	425.6	423
2	Gomphodus	Ludfordian	425.6	423
1	Witaaspis	Rootsikula	426.2	422.9
2	Saarolepis	Rootsikula	426.2	422.9
3	Qilinyu	Gorstian	427.4	425.6

3	Silurolepis				Gorstian		427.4	425.6
4	Andreolepis				Ludlow		427.4	423
5	Guiyu	Gorstian	427.4	425.6	Ludlow		427.4	423
2	Helenolepis				Ludlow	Pridoli	427.4	419.2
1	Pedavis				Ludlow		427.4	423
2	Polybranchiaspis	Lochkovian, Early	419.2	416.4	Ludlow		427.4	423
2	Americaspis				Ludlow		427.4	423
2	Archegonaspis				Ludlow		427.4	423
2	Nethertonodus				Ludlow		427.4	423
2	Valiukia				Ludlow		427.4	423
2	Phlebolepis				Gorstian		427.4	425.6
1	Hemicyclaspis				Homerian	Gorstian	430.5	425.6
2	Nostolepis				Homerian		430.5	427.4
2	Rhyncholepis				Homerian		430.5	427.4
1	Aldridgeodus				Homerian		430.5	427.4
1	Auchenaspis				Homerian		430.5	427.4
1	Oeselaspis				Homerian		430.5	427.4
1	Saaremaaspis				Homerian		430.5	427.4
1	Nicollidina				Wenlock	Pridoli	433.4	419.2
2	Cyathaspis				Wenlock	Ludlow	433.4	423
1	Ancoradella				Wenlock	Ludlow	433.4	423
1	Lasanius				Wenlock	Ludlow	433.4	423
2	Ariaspis				Wenlock		433.4	427.4
2	Kiangsuaspis				Wenlock		433.4	427.4
2	Overia				Sheinwoodian	Homerian	433.4	427.4
2	Phialaspis				Wenlock		433.4	427.4
2	Pilolepsis				Wenlock		433.4	427.4
2	Shielia				Wenlock		433.4	427.4
2	Tolypelepis				Wenlock		433.4	427.4
1	Huddlella				Wenlock		433.4	427.4
1	Ctenognathodus				Sheinwoodian		433.4	430.5
2	Dayongaspis				Telychian		438.5	433.4
1	Nudibelodina				Telychian		438.5	433.4
1	Rhynchognathodus				Telychian		438.5	433.4
1	Astropentagnathus				Aeronian	Telychian	440.8	433.4
1	Polygnathoides				Aeronian	Telychian	440.8	433.4
1	Aspeluindia spelling				Aeronian	Telychian	440.8	433.4
1	Lonchodina				Aeronian		440.8	438.5
1	Pseudobelodella				Aeronian		440.8	438.5
x	Pentlandia				Aeronian	UNCERTAIN	440.8	438.5
2	Archipelepis				Llandovery		443.4	433.4
2	Athenaegis				Llandovery		443.4	433.4
2	Lanarkia				Llandovery		443.4	433.4
2	Loganellia				Llandovery		443.4	433.4
2	Paralogania				Llandovery		443.4	433.4
2	Pezopallichthys				Llandovery		443.4	433.4
2	Tesakoviaspis				Llandovery		443.4	433.4
2	Thelodus				Llandovery		443.4	433.4
2	Jamoytius				Llandovery	Wenlock	443.4	427.4
1	Birkenia				Llandovery	Wenlock	443.4	427.4
1	Anticostiodus				Llandovery		443.4	433.4
1	Coryssognathus				Llandovery		443.4	433.4

1	Diadelognathus	Llandovery		443.4	433.4
1	Galerodus	Llandovery		443.4	433.4
1	Hadrognathus	Llandovery		443.4	433.4
1	Icriognathus	Llandovery		443.4	433.4
1	Apsidognathus	Rhuddanian	Aeronian	443.4	438.5
1	Aulacognathus	Rhuddanian	Aeronian	443.4	438.5
1	Exochognathus	Rhuddanian	Aeronian	443.4	438.5
1	Pranognathus	Rhuddanian	Aeronian	443.4	438.5
1	Delotaxis	Rhuddanian		443.4	440.8
1	Pterospathodus	Rhuddanian		443.4	440.8
x	Bryantodus	Silurian		443.4	419.2
x	Dikenaspis	Silurian		443.4	419.2
x	Homalaspidella	Silurian		443.4	419.2
X	Kannathalepis	Silurian		443.4	419.2
x	Ptomaspis	Silurian		443.4	419.2
x	Vernonaspis	Llandovery	Ludlow	443.4	423
1	Promissum	Hirnantian		445.2	443.4
1	Kockelella	Richmondian		449.5	443.7
1	Noixodontus	Gamachian		449.5	443.7
1	Pristognathus	Richmondian		449.5	443.7
1	Pseudolonchodina	Richmondian		449.5	443.7
1	Rexroadus	Ashgill		449.5	443.7
1	Wurmiella	Richmondian		449.5	443.7
1	Aspelundia spelling	Richmondian		449.5	443.7
1	Istorinus	Kralodvorian		449.5	445.6
1	Nordiodus	Kralodvorian		449.5	445.6
1	Hibbardella	Katian	Hirnantian	453	443.4
1	Carniodus	Rawtheyan	Kralodvori	455.8	445.6
1	Sagittodontina	Rawtheyan	Kralodvori	455.8	445.6
1	Eocarniodus	Soudleyan	Marshbroc	457.5	452
1	Birksfeldia	Late Ordovician		458.4	443.4
1	Rhipidognathus	Late Ordovician		458.4	443.4
1	Taoqupognathus	Late Ordovician		458.4	443.4
1	Gnathodus	Sandbian	Katian	458.4	445.2
1	Spathognathodus	Sandbian	Katian	458.4	445.2
1	Besselodus	Sandbian		458.4	453
1	Complexodus	Sandbian		458.4	453
1	Venoistodus	Sandbian		458.4	453
2	Astraspis	Franklinian		460.9	449.5
2	Dictyorhabdus	Caradoc		460.9	449.5
2	Eriptychius	Franklinian		460.9	449.5
2	Larolepis	Franklinian		460.9	449.5
2	Sandivia	Caradocian		460.9	449.5
2	Stroinolepis	Caradocian		460.9	449.5
1	Gamachignathus	Edenian	Richmondi	460.9	443.7
1	Acanthocordylodus	Caradoc		460.9	449.5
1	Acanthodina	Caradoc		460.9	449.5
1	Appalachignathus	Blackriveran	Kirkfieldiar	460.9	449.5
1	Culumbodina	Edenian	Maysvilliar	460.9	449.5
1	Hamarodus	Caradocian		460.9	449.5
1	Mixoconus	Blackriveran	Shermania	460.9	449.5
1	Plegagnathus	Caradoc		460.9	449.5

1	Leptochirognathus	Arenigian	478.6	466
1	Microzarkodina	Floian	478.6	466
1	Multioistodus	Arenigian	478.6	466
1	Ozarkodina	Arenigian	478.6	466
1	Panderodus	Arenigian	478.6	466
1	Paraserratognathus	Arenigian	478.6	466
1	Plectodina	Arenigian	478.6	466
1	Polonodus	Arenigian	478.6	466
1	Stereoconus	Arenigian	478.6	466
1	Strachanognathus	Arenigian	478.6	466
1	Archeognathus	Cassinian	478.6	468.1
1	Fahraeosodus	Blackhillsian	478.6	471.8
1	Decoriconus	Hunneberg	484.5	471.8
1	Oelandodus	Hunneberg	484.5	471.8
1	Tripodus	Hunneberg	484.5	471.8
1	Acanthodus	Tremadoc	485.4	477.7
1	Acodina	Tremadoc	485.4	477.7
1	Chosonodina	Tremadoc	485.4	477.7
1	Cornuodus	Tremadocian	485.4	477.7
1	Cristodus	Tremadocian	485.4	477.7
1	Distacodus	Tremadoc	485.4	477.7
1	Distomodus	Tremadocian	485.4	477.7
1	Kallidontus	Tremadoc	485.4	477.7
1	Paracordylodus	Tremadocian	485.4	477.7
1	Parapanderodus	Tremadoc	485.4	477.7
1	Prioniodus	Tremadoc	485.4	477.7
1	Protopanderodus	Tremadoc	485.4	477.7
1	Protoprioniodus	Tremadoc	485.4	477.7
1	Scalpellodus	Tremadocian	485.4	477.7
1	Scandodus	Tremadoc	485.4	477.7
1	Serratognathus	Tremadoc	485.4	477.7
1	Stultodontus	Tremadoc	485.4	477.7
1	Trapezognathus	Tremadoc	485.4	477.7
1	Triangulodus	Tremadoc	485.4	477.7
1	Tricostatus	Tremadoc	485.4	477.7
1	Tropodus	Tremadoc	485.4	477.7
1	Ulrichodina	Tremadoc	485.4	477.7
1	Ventricodus	Tremadoc	485.4	477.7
1	Colaptoconus	Stairsian	485.4	478.6
1	Eucharodus	Stairsian	485.4	478.6
1	Laurentoscandodus	Skullrockian	485.4	478.6
1	Macerodus	Stairsian	485.4	478.6
1	Oistodus	Warendian	485.4	478.6
1	Striatodontus	Stairsian	485.4	478.6
1	Paltodus	Varangu	485.4	484.5
1	Paroistodus	Varangu	485.4	484.5
1	Rossodus	Varangu	485.4	484.5
1	Dapsilodus	Early Ordovician	485.4	470
1	Neomultioistodus	Early Ordovician	485.4	470
1	Osلودus	Early Ordovician	485.4	470
1	Pseudooneotodus	Early Ordovician	485.4	470
1	Pygodus	Early Ordovician	485.4	470

1	Thrincodus	Early Ordovician	485.4	470
1	Juanognathus	Tulean Blackhillsia	485.4	471.8
1	Bergstroemognathus	Ibexian	488.3	471.8
1	Oepikodus	Ibexian	488.3	471.8
1	Periodon	Ibexian	488.3	471.8
1	Pteracontiodus	Ibexian	488.3	471.8
1	Cambrooistodus	Niuchehean(Age 10)	489.5	485.4
1	Clavohamulus	Niuchehean(Age 10)	489.5	485.4
1	Coelocerodontus	Age 10/Furongian	489.5	485.4
1	Cordylodus	Niuchehean(Age 10)	489.5	485.4
1	Drepanodus	Age 10	489.5	485.4
1	Drepanoistodus	Age 10	489.5	485.4
1	Eoconodontus	Niuchehean(Age 10)	489.5	485.4
1	Fryxellodontus	Age 10/Furongian	489.5	485.4
1	Granatodontus	Niuchehean(Age 10)	489.5	485.4
1	Hirsutodontus	Age 10/Furongian	489.5	485.4
1	Loxodus	Age 10	489.5	485.4
1	Proconodontus	Niuchehean(Age 10)	489.5	485.4
1	Scolopodus	Age 10	489.5	485.4
1	Semiacontiodus	Age 10	489.5	485.4
1	Stenodontus	Niuchehean(Age 10)	489.5	485.4
1	Terodontus	Niuchehean(Age 10)	489.5	485.4
1	Utahconus	Age 10	489.5	485.4
1	Albiconus	Age 10	489.5	485.4
1	Problematoconites	Age 10	489.5	485.4
1	Monocostodus	Sunwaptan	493	486.6
1	Variabiloconus	Sunwaptan	493	486.6
1	Iapetognathus	Trempealeuan	497	484
1	Parutahconus	Trempealeuan(poss age	497	484
1	Polycostatus	Trempealeuan(poss age	497	484
1	Sagittodontus	Franconian Trempeale	497	484
1	Dasytodus	Furongian	497	485.4
1	Hispidodontus	Furongian	497	485.4
1	Proacodus	Furongian	497	485.4
1	Serratocambria	Furongian	497	485.4
1	Trolmenia	Furongian	497	485.4
1	Rotundoconus	Sunwaptan	498.5	485.4
1	Nogamiconus	Guzhangian	500.5	497
1	Furnishina	Guzhangian	500.5	497
1	Muellerodus	Guzhangian	500.5	497
1	Prosagittodontus	Guzhangian	500.5	497
1	Proscandodus	Guzhangian	500.5	497
1	Acodus	Paibian	501	498.5
1	Metaspriggina	Middle Cambrian	513	501
1	Westergaardodina	Menevian	513	501
1	Pikaia	Delamarian	513	505
1	Phakelodus	Dyeran	516	513
1	Haikouichthys	Atdabanian	520	516
1	Myllokunmingia	Atdabanian	520	516
1	Oneotodus	Atdabanian	520	516
1	Prooneotodus	Atdabanian	520	516
1	Shankouclava	Atdabanian	520	516

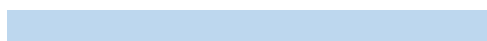
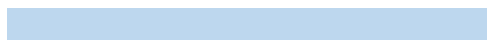
1	Yunnanozoon	Atdabanian		520	516
1	Hertzina	Manykaian		541	530
2	anjiaspis	Telychian, Late		435.1	433.4
2	konoceraspis	Telychian, Early		438.5	436.8
2	microphymaspis	Telychian, Early		438.5	436.8
2	nanjiangaspis	Telychian, Early		438.5	436.8
2	platycaraspis	Telychian, Early		438.5	436.8
3	wangolepis	Wenlock, Early		433.4	430
3	mongolepis	Telychian, Mid		436.8	435.1
3	Shimenolepis	Telychian, Mid		436.8	435.1
3	sinacanthus	Telychian, Mid		436.8	435.1
3	xinjiangichthys	Telychian, Mid		436.8	435.1
3	neosinacanthus	Telychian, Early		438.5	436.8
4	Kawalepis	Ludfordian, Late		424.3	423
4	Naxilepis	Ludfordian, Late		424.3	423
5	chirodiptereus	Frasnian		382.7	372.2
5	dongshanodus	Eifelian, Late		389.6	387.7
5	heimenia	Emsian, Late		402.5	391.9
5	arquaticthys	Pragian		410.8	407.6
5	meemannia	Lochkovian, Mid-Late		416.4	410.8
6	Eogyrinus	BSH(u)		319.2	315.2
6	Eosaurus	BSH(u)		319.2	315.2
6	Papposaurus	SPK(l)		330.9	327
8	Hexacynodon	CHX	CHX	254.2	252.17
8	Broomicephalus	WUC(u)	CHX	257	252.17
8	Propelanomodon	WUC(u)	CHX	257	252.17
8	Rubidgina	WUC(u)	CHX	257	252.17
8	Scalopocynodon	WUC(u)	CHX	257	252.17
8	Peramodon	WUC(u)	CHX(l)	257	253.17
8	Vivaxosaurus	WUC(u)	CHX(l)	257	253.17
8	Ictidosuchoides	WUC(l)	IND	259.9	252.17
8	Leontocephalus	WUC(l)	CHX	259.9	252.17
8	Prorubidgea	WUC(l)	CHX	259.9	252.17
8	Aulocephalus	WUC(l)		259.9	257
8	Cephalocustroidus	WUC(l)		259.9	257
8	Cteniosaurus	WUC(l)		259.9	257
8	Galepus	WUC(l)		259.9	257
8	<i>Idelisaurus</i>	WUC(l)		259.9	257
8	Nanicticephalus	WUC(l)		259.9	257
8	Pachytegos	WUC(l)		259.9	257
8	Parathrinaxodon	WUC(l)		259.9	257
8	Ruhucerberus	WUC(l)		259.9	257
8	Titanogorgon	WUC(l)		259.9	257
8	Ictidostoma	CAP(u)	CAP(u)	262.5	259.9
8	Scalopodon	CAP(u)	CAP(u)	262.5	259.9
8	Broomisaurus	WOR(u)	CAP(l)	267	262.5
8	Chelydontops	WOR(u)	CAP(l)	267	262.5
8	Crapartinella	WOR(u)	CAP(l)	267	262.5
8	Criocephalus	WOR(u)	CAP(l)	267	262.5
8	Eccasaurus?	WOR(u)	CAP(l)	267	262.5
8	Eoarc tops	WOR(u)	CAP(l)	267	262.5
8	Galesuchus	WOR(u)	CAP(l)	267	262.5

8	Paranteosaurus	WOR(u)	CAP(l)	267	262.5
8	Scylacognathus	WOR(u)	CAP(l)	267	262.5
8	Struthionops	WOR(u)	CAP(l)	267	262.5
8	Zinnosaurus	WOR(u)	CAP(l)	267	262.5
8	Admetophoneus?	WOR		268.8	265.1
8	Anoplosuchus	WOR		268.8	265.1
8	Brithopus	WOR		268.8	265.1
8	Eotitanosuchus	WOR		268.8	265.1
8	Ivantosaurus	WOR		268.8	265.1
8	Phthinosuchus	WOR		268.8	265.1
8	Stenocybus	WOR		268.8	265.1
8	Zopherosuchus	WOR		268.8	265.1
8	Spenacodon	ASS(l)	ASS(u)	298.9	295.5
6	Arachana	CHX	IND	254.2	252.17
6	Gondwanosaurus	CHX		254.2	252.17
6	Muchocephalus	CHX		254.2	252.17
7	Shansisaurus	CHX	CHX	254.2	252.17
6	Tupilakosaurus	WUC(u)	IND	257	252.17
6	Buzulukia	WUC(u)	CHX(u)	257	252.17
7	Heleosuchus	WUC(l)	IND	259.9	252.17
7	Lacertulus	WUC(l)		259.9	257
7	Niphosaurus	WUC(l)		259.9	257
6	Phrynosuchus	WOR(u)	WUC(l)	267	253.2
6	Phratocronis	WOR		268.8	265.1
6	Urumqia	WOR		268.8	265.1
6	Kourerpeton	ROA		272.3	268.8
7	Tokosaurus	ROA		272.3	268.8
6	Alegeinosaurus	KUN(u)		275.8	272.3
6	Trematops	KUN(u)		275.8	272.3
6	Subcyclotosaurus	ART(u)		284.7	279.3
7	Riabininus	ART(l)	ART(u)	290.1	279.3
6	Limnosceloides	ASS(l)	ASS(u)	298.9	295.5
6	Limnoscelops	ASS(l)	ASS(u)	298.9	295.5
6	Diasparactus	GZE	ASS(l)	303.7	297.2
6	Menonomenos	GZE		303.7	298.9
7	Concordia	GZE	GZE	303.7	298.9
6	Saurerpeton	MOS(u)		311.1	307
6	Aornerpeton	MOS(u)		311.1	307
6	Mazon Creek microsaur	MOS(u)		311.1	307
6	Arkanserpeton	MOS(l)		315.2	311.1
3	Dittodus	Famennian		372.2	358.9
3	Gannanichthys	Famennian		372.2	358.9
3	harpadodens	Famennian		372.2	358.9
3	Jiangxilepis	Famennian		372.2	358.9
3	phymosteus	Famennian		372.2	358.9
3	Changyanophyton	Frasnian		382.7	372.2
3	ningxialepis	Frasnian		382.7	372.2
3	remigolepis	Frasnian		382.7	372.2
3	clarkeosteus	Givetian, Late		388.1	383.7
3	Eastmanosteus	Givetian, Late		388.1	383.7
3	huaningichthys	Givetian, Late		388.1	383.7

3	Kiangyousteus	Givetian, Late	388.1	383.7
3	Panxiosteus	Givetian, Late	388.1	383.7
1	Palmatolepis			
2	clarorbis	Eifelian, Mid	391.4	389.6
3	Eurycaraspis	Eifelian, Mid	391.4	389.6
3	hunanolepis	Eifelian, Mid	391.4	389.6
1	dangdoouichthys	Eifelian, early to mid	393.3	389.6
1	rhadinacanthus	Eifelian, early to mid	393.3	389.6
4	qinlingichthys	Eifelian, early to mid	393.3	389.6
2	Wumengshanaspis	Emsian, Late	402.5	391.9
3	Exutaspis	Emsian, Late	402.5	391.9
3	Hohsienolepis	Emsian, Late	402.5	391.9
3	Jiuchengia	Emsian, Late	402.5	391.9
3	Livosteus	Emsian, Late	402.5	391.9
3	Luquanolepis	Emsian, Late	402.5	391.9
3	Microbrachius	Emsian, Late	402.5	391.9
3	Wudinolepis	Emsian, Late	402.5	391.9
3	Xiangshuiosteus	Emsian, Late	402.5	391.9
3	Yinostius	Emsian, Late	402.5	391.9
2	duyunolepis	Emsian, Early	409.1	402.5
2	lopadaspis	Emsian, Early	409.1	402.5
2	neoduyunaspis	Emsian, Early	409.1	402.5
2	paraduyunaspis	Emsian, Early	409.1	402.5
2	tridensaspis	Emsian, Early	409.1	402.5
3	dayoashania	Emsian, Early	409.1	402.5
3	Hercynolepis	Emsian, Early	409.1	402.5
3	kadunglelepis	Emsian, Early	409.1	402.5
3	kieichowlepis	Emsian, Early	409.1	402.5
3	lijiangichthys	Emsian, Early	409.1	402.5
3	sinopetalichthys	Emsian, Early	409.1	402.5
3	tareyacanthus	Emsian, Early	409.1	402.5
3	trundlelepis	Emsian, Early	409.1	402.5
3	wuxuanichthys	Emsian, Early	409.1	402.5
4	Dialipina	Emsian, Early	409.1	402.5
2	antiquisagittaspis	pragian	410.8	407.6
2	gantarostrataspis	Pragian	410.8	407.6
2	gumuaspis	Pragian	410.8	407.6
2	huananaspis	Pragian	410.8	407.6
2	kwangnanaspis	Pragian	410.8	407.6
2	lungmenshanaspis	Pragian	410.8	407.6
2	macrothyraspis	Pragian	410.8	407.6
2	pterogonaspis	Pragian	410.8	407.6
2	Qingmenaspis	Pragian	410.8	407.6
2	sanchaspis	Pragian	410.8	407.6
2	sanqiaspis	Pragian	410.8	407.6
2	sinoszechuanaspis	Pragian	410.8	407.6
2	Wenshanaspis	Pragian	410.8	407.6
2	zhaotongaspis	Pragian	410.8	407.6
3	bohemicus	Pragian	410.8	407.6
3	brevipetalichthys	Pragian	410.8	407.6
3	Chuanbeiolepis	Pragian	410.8	407.6
3	grammaspis	Pragian	410.8	407.6

3	Liujiangolepis	Pragian	410.8	407.6
3	mizia	Pragian	410.8	407.6
3	Neopetalichthys	Pragian	410.8	407.6
3	pampetalichthys	Pragian	410.8	407.6
3	Prapetalichthys	Pragian	410.8	407.6
3	yiminaspis	Pragian	410.8	407.6
3	yujiangolepis	Pragian	410.8	407.6
3	yunlongolepis	Pragian	410.8	407.6
3	asiacanthus	Lochkovian, Mid-Late	416.4	410.8
3	gavinaspis	Lochkovian, Mid-Late	416.4	410.8
3	gualepis	Lochkovian, Mid-Late	416.4	410.8
3	Ohiolepis	Lochkovian, Mid-Late	416.4	410.8
3	parawilliamsaspis	Lochkovian, Mid-Late	416.4	410.8
1	changolepis	Lochkovian, Mid-Late	416.4	410.8
1	peilepis	Lochkovian, Mid-Late	416.4	410.8
1	youngacanthus	Lochkovian, Mid-Late	416.4	410.8
2	diplohollcaspis	Lochkovian, Mid-Late	416.4	410.8
2	microholonaspis	Lochkovian, Mid-Late	416.4	410.8
3	nostolepoides	lochkovian	419.2	410.8
3	Buchanosteus	Lochkovian, Early	419.2	416.4
3	Chuchinolepis	Lochkovian, Early	419.2	416.4
3	Diandongpetalichthys	Lochkovian, Early	419.2	416.4
3	gansuichthys	Lochkovian, Early	419.2	416.4
3	heteroyunnanolepis	Lochkovian, Early	419.2	416.4
3	Iberolepis	Lochkovian, Early	419.2	416.4
3	minicrania	Lochkovian, Early	419.2	416.4
3	szelepis	Lochkovian, Early	419.2	416.4
2	parathelodus	Lochkovian, Early	419.2	416.4



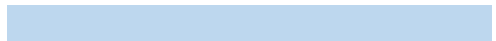


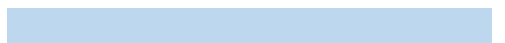












Yellow bar

Blue bar

Blue bar

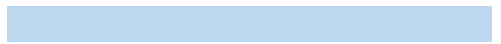
Yellow bar

Blue bar

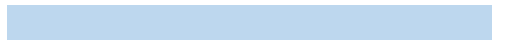
Blue bar

Blue bar

Light blue bar



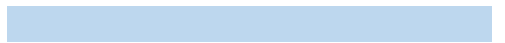




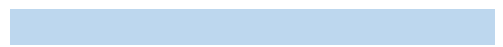
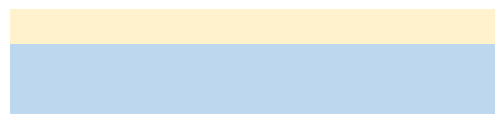




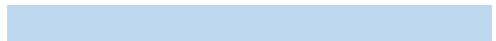
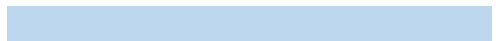
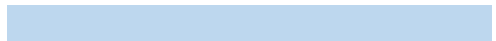




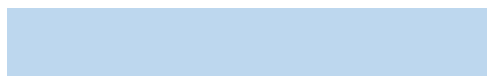












Blue horizontal bar

Blue horizontal bar

Orange horizontal bar

Yellow horizontal bar

Blue horizontal bar

Yellow horizontal bar

Horizontal blue bar

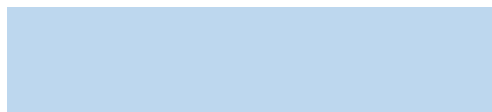
Thick horizontal blue bar

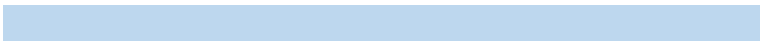
Horizontal blue bar

Light blue horizontal bar

Thick horizontal blue bar

Light blue horizontal bar





Blue horizontal bar

Orange horizontal bar

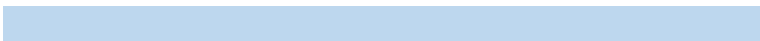
Blue horizontal bar

Orange horizontal bar
Yellow horizontal bar

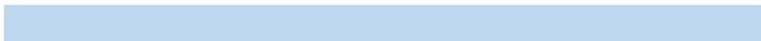
Blue horizontal bar

Blue horizontal bar

Blue horizontal bar











Orange bar

Blue bar

Blue bar

Orange bar

Orange bar

Blue bar

Blue bar

Orange bar

Orange bar

Yellow bar

Blue bar

Yellow bar

Horizontal bar (light blue)

Vertical bar (yellow)

Vertical bar (yellow)

Vertical bar (yellow and light blue)

Horizontal bar (yellow)

Vertical bar (light blue)

Vertical bar (light blue)

Yellow bar

Blue bar

Yellow square

Yellow square

Orange bar

Yellow square

Blue bar

Orange bar



Horizontal blue bar

Horizontal blue bar

Horizontal blue bar

Horizontal blue bar



Horizontal blue bar



Horizontal blue bar

[Blue horizontal bar]

[Small blue square]

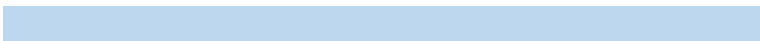
[Blue horizontal bar]

[Blue horizontal bar]

[Blue horizontal bar]

[Small blue square]

[Yellow horizontal bar]



[Yellow bar]

[Blue bar]

[Blue bar]

[Blue bar]

[Yellow bar]

[Blue bar]

[Blue bar]

[Yellow bar]

[Blue bar]

[Blue bar]

Small blue rectangle followed by a long blue rectangle.

Long blue rectangle.

Long blue rectangle.

Blue horizontal bar

Blue horizontal bar

Blue horizontal bar

Yellow horizontal bar

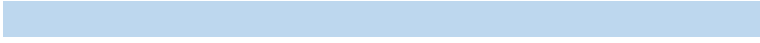
Horizontal bar 1 (light blue)

Horizontal bar 2 (medium blue)

Horizontal bar 3 (medium blue)

Horizontal bar 4 (yellow)

Horizontal bar 5 (orange)



Horizontal blue bar

Horizontal yellow bar

Small blue square





Horizontal bar 1 (light blue)

Horizontal bar 2 (light blue)

Horizontal bar 3 (light blue)

Horizontal bar 4 (bright blue)

Horizontal bar 5 (light blue)

Horizontal bar 6 (light blue)

Horizontal bar 7 (yellow)



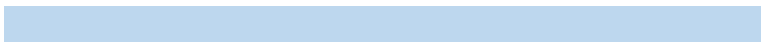
Horizontal blue bar

Horizontal light blue bar

Horizontal blue bar

Horizontal yellow bar

Horizontal blue bar



Blue horizontal bar

Yellow horizontal bar

Blue horizontal bar

Blue horizontal bar

Blue horizontal bar

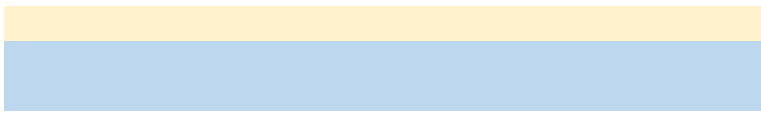
Blue horizontal bar

Yellow horizontal bar

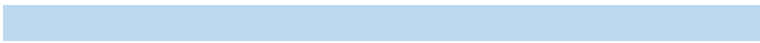
Blue horizontal bar

Blue horizontal bar

Blue horizontal bar







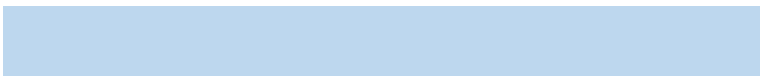
Yellow bar

Stacked bars: light blue, yellow, light blue

Light blue bar

Yellow bar

Yellow bar





Blue bar

Blue bar

Orange bar

Yellow bar

Blue bar

Yellow bar

Horizontal blue bar

Thick horizontal blue bar

Horizontal blue bar

Light blue horizontal bar

Thick horizontal blue bar

Light blue horizontal bar

























[Redacted]

[Redacted]

[Redacted]

[Redacted]

