

Appendix 1.

Compilation of embryonic shell measurements of Paleozoic and Mesozoic ammonoid taxa, geographic areas and inferred climate.

Species	Protoconch, mm	Ammonitella, mm	Family or Superfamily	Location	Climate (if known)	Period	Age (stage)	Source
" <i>Craspedites</i> " cf. <i>ivanovi</i>	0.53		?Craspeditidae	Central Russia	Subtropical or Tropical	Jurassic	Middle Volgian, <i>Virgatus</i> Chron	Drushchits <i>et al.</i> (1985)
?? <i>Cravenoceras incisum</i>	0.46	0.9	Cravenoceratidae	USA		Mississippian	Serpukhovian	Smith (1897)
?? <i>Isohomoceras diadema</i>	0.66	0.9	Homoceratidae	USA		Mississippian	Bashkirian	Smith (1897)
<i>Acanthohoplites</i> sp.	0.39		Acanthohoplitidae	Caucasus/Mangyshlak	Subtropical or Tropical	Cretaceous	Late Aptian	Drushchits & Doguzhaeva (1981)
<i>Aconeceras trautscholdi</i>	0.36		Aconeceratidae	Volga	Subtropical or Tropical	Cretaceous	Early Aptian, <i>Deschauesi</i> Chron	Drushchits & Doguzhaeva (1981)
<i>Adrianites dunbari</i>	0.55	1	Adrianitidae	Mexico		Permian	Middle	Tanabe <i>et al.</i> (1994)
<i>Agathiceras applini</i>	0.44	1.03	Agathiceratidae	USA		Permian	Admiral Formation	Miller & Unklesbay (1943)
<i>Agathiceras uralicum</i>	0.7		Agathiceratidae	Russia		Permian	Artinskian	Schoulga-Nesterenko (1926)
<i>Agoniatites fulgurialis</i>	1.6	2.5	Agoniatitidae	Germany		Devonian	Givetian	Erben (1964)
<i>Agoniatites holzapfeli</i>	1.4	2.3	Agoniatitidae	Germany		Devonian	Givetian	Erben (1964)
<i>Agoniatites obliquus</i>	1.4	2.4	Agoniatitidae	Canada		Devonian	Middle Devonian (Dunedin – Besa river formations) – Givetian	Wissner & Norris (1991)
<i>Agoniatites</i> sp.		2.6	Agoniatitidae	Germany		Devonian	Givetian	Erben (1964)
<i>Akmilleria electraensis</i>	0.5	1.08	Medlicottiidae	USA		Permian	Middle	Tanabe <i>et al.</i> (1994)
<i>Amaltheus margaritatus</i>	0.42		Eoderoceratoidea			Jurassic	Late Pliensbachian	Grandjean (1910)
<i>Amauroceras ferrugineum</i>	0.56	1	Eoderoceratoidea		Subtropical or Tropical	Jurassic	Late Pliensbachian	Landman <i>et al.</i> (1996)
<i>Amoebites kitchini</i>	0.6		Cardiocerataidae	N Siberia	Temperate	Jurassic	Early Kimmeridgian	Knyazev (1975)
<i>Anagaudriceras buddha</i>	0.68		Gaudryceratidae	Japan	Subtropical or Tropical	Cretaceous	Middle Cenomanian	Shigeta (1993)
<i>Anagaudriceras limatum</i>	0.67		Gaudryceratidae	Japan	Subtropical or Tropical	Cretaceous	Coniacian	Shigeta (1993)
<i>Anagaudriceras matsumotoi</i>	0.69		Gaudryceratidae	Japan	Subtropical or Tropical	Cretaceous	Early Maastrichtian	Shigeta (1993)
<i>Anagaudriceras nanum</i>	0.69		Gaudryceratidae	Japan	Subtropical or Tropical	Cretaceous	Early Campanian	Shigeta (1993)
<i>Anagaudriceras</i> sp.	0.685		Gaudryceratidae	Sakhalin	Subtropical or Tropical	Cretaceous	Santonian–Campanian	Drushchits & Doguzhaeva (1981)
<i>Anagaudriceras tetragonum</i>	0.7		Gaudryceratidae	Japan	Subtropical or Tropical	Cretaceous	Early Maastrichtian	Shigeta (1993)
<i>Anagaudriceras yokomai</i>	0.72	1.41	Tetragonitidae	Hokkaido	Subtropical or Tropical	Cretaceous	Early Santonian	Shigeta (1993), Tanabe & Ohtsuka (1985)
<i>Anahoplites intermedius</i>	0.45		Hoplitaceae	Kopetdagh	Subtropical or Tropical	Cretaceous	Middle Albian, <i>A. intermedius</i> Chron	Mikhailova (1980)
<i>Anahoplites michalskii</i>	0.58		Hoplitaceae	Tuarkyr	Subtropical or Tropical	Cretaceous	Late Albian, <i>H. orbignyi</i> – <i>P. inflata</i> Chrons	Mikhailova (1980)
<i>Anahoplites rossicus</i>	0.54		Hoplitaceae	Mangyshlak	Subtropical or Tropical	Cretaceous	Late Albian, <i>A. rossicus</i> Chron	Mikhailova (1980)
<i>Anahoplites solidus</i>	0.5		Hoplitaceae	Mangyshlak	Subtropical or Tropical	Cretaceous	Late Albian, <i>A. rossicus</i> Chron	Mikhailova (1980)
<i>Anahoplites uhligi</i>	0.6		Hoplitaceae	Mangyshlak	Subtropical or Tropical	Cretaceous	Late Albian, <i>H. orbignyi</i> – <i>P. inflata</i> Chrons	Mikhailova (1980)
<i>Anapachydiscus yezeensis</i>	0.44		Pachydiscidae	Japan	Subtropical or Tropical	Cretaceous	Early Santonian	Shigeta (1993)
<i>Anarcestes (Anarcestes) simulans</i>		1.9	Anarcestinae			Devonian	Emsian	Bogoslovskaya (1951)
<i>Anarcestes (Latanarcestes) noeggerati</i>		1.9	Anarcestinae			Devonian	Emsian	Bogoslovskaya (1951)
<i>Anasibirites nevolini</i>	0.445		Xenoceltitidae	Far East		Triassic	Early Olenekian	Zakharov (1978)
<i>Andidiscus behrendseni</i>	0.15		Dubariceratidae	Argentina	Subtropical or Tropical	Jurassic	Early Pliensbachian	Hillebrandt 2006
<i>Anthracoceras missouriense</i>	0.28		Anthracoceratidae	USA		Pennsylvanian		Miller & Unklesbay (1943)
<i>Arcestes</i>	0.5		Arcestidae	Cosmopolite		Triassic	Anisian–Rhaetian	Spath (1950)
<i>Arcestes</i> sp.	0.37	0.65	Arcestidae	Timor	Subtropical or Tropical	Triassic	Carnian	Zakharov (1974)
<i>Archoceras paeckelmanii</i>		1	Anarcestidae	Morocco		Devonian	Frasnian	Landman <i>et al.</i> (1996)
<i>Archoceras tataense</i>		1	Anarcestidae	Morocco		Devonian	Frasnian	Landman <i>et al.</i> (1996)
<i>Arctoceras septentrionale</i>	0.51	0.96	Arctoceratidae	Far East		Triassic	Olenekian	Zakharov (1974)
<i>Arctogymnites sonini</i>	0.85	1.45	Beyrichitidae	N Siberia/NE Asia	Temperate	Triassic	Late Anisian, <i>nevadanus</i> Z.	Vavilov (1992)
<i>Arctogymnites spectori</i>	0.68	1.15	Beyrichitidae	N Siberia/NE Asia	Temperate	Triassic	Late Anisian, <i>spectori</i> Z.	Vavilov (1992)
<i>Arctohungarites evolutus</i>	0.39	0.735	Longobarditidae	Taymyr	Temperate	Triassic	Middle Anisian	Alekseyev <i>et al.</i> (1984)
<i>Arctohungarites involutus</i>	0.4	0.74	Longobarditidae	Taymyr	Temperate	Triassic	Early Anisian	Alekseyev <i>et al.</i> (1984)
<i>Arctohungarites triformis</i>	0.41	0.69	Longobarditidae	Taymyr	Temperate	Triassic	Middle Anisian	Alekseyev <i>et al.</i> (1984)
<i>Arctohungarites kharaulakhensis</i>	0.4	0.72	Longobarditidae	N Siberia/NE Asia	Temperate	Triassic	Middle Anisian, <i>kharaulakhensis</i> Z.	Vavilov (1992)
<i>Arctomeekoceras rotundatum</i>	0.37	0.82	Meekoceratidae	Far East		Triassic	Late Olenekian	Zakharov (1978)
<i>Arctophyllites taimyrense</i>	0.675	1.3	Discophyllitidae	N Siberia/NE Asia	Temperate	Triassic	Ladinian–Carnian boundary	Vavilov (1992)
<i>Arctoprionites pronthischevi</i>	0.39		Prionitidae	Far East		Triassic	Late Olenekian	Zakharov (1978)

Species	Protoconch, mm	Ammonitella, mm	Family or Superfamily	Location	Climate (if known)	Period	Age (stage)	Source
<i>Arctoptychites euglyphus</i>	0.62	1	Ptychitidae	N Siberia/NE Asia	Temperate	Triassic	Late Ladinian, <i>omolajensis</i> Z.	Vavilov (1992)
<i>Arctoptychites kruzini</i>	0.65	0.885	Ptychitidae	N Siberia/NE Asia	Temperate	Triassic	Late Ladinian, <i>omolajensis</i> Z.	Vavilov (1992)
<i>Arietites kridion</i>	0.37		Psiloceratacea			Jurassic	Sinemurian	Grandjean 1910
<i>Arietites</i> sp.	0.35	0.64	Psiloceratacea	Germany (Lias)	Subtropical or Tropical	Jurassic	Sinemurian	Tanabe & Ohtsuka (1985)
<i>Aristoceras</i> sp.	0.36	0.75	Thalassoceratidae	USA			Late Pennsylvanian–Early Permian	Tanabe <i>et al.</i> (1994)
<i>Aristoptychites kolymensis</i>	0.64	0.785	Ptychitidae	N Siberia/NE Asia	Temperate	Triassic	Late Ladinian, <i>mconnelli</i> Z.	Vavilov (1992)
<i>Arkanites relictus</i>	0.51	0.81	Reticuloceratidae	USA			Pennsylvanian Bashkirian	Tanabe <i>et al.</i> (1994)
<i>Artinskia artiensis</i>	0.435	0.9	Medlicottiidae	Russia			Permian Artinskian	Bogoslovskaya (1951)
<i>Baculites</i> sp.	0.775		Baculitidae	USA	Subtropical or Tropical	Cretaceous	Turonian–Santonian	Landman (1982)
<i>Berriasella (Hegarotella) jauberti</i>	0.5		Berriasellidae	Crimea	Subtropical or Tropical	Cretaceous	Middle Berriasian	Bogdanova & Arkadiev (2005)
<i>Beudanticeras laevigatum</i>	0.49		Desmoceratidae	Mangyshlak	Subtropical or Tropical	Cretaceous	Early Albian	Drushchits & Doguzhaeva (1981)
<i>Bhimaites takahashii</i>	0.5		Desmoceratidae	Japan	Subtropical or Tropical	Cretaceous	Middle Turonian	Shigeta (1993)
<i>Biasaloceras subsequens</i>	0.33		Lytoceratidae	Crimea	Subtropical or Tropical	Cretaceous	Early Barremian	Drushchits (1956)
<i>Binatisphinctes mosquensis</i>	0.39		Perisphinctidae	Central Russia	Subtropical or Tropical	Jurassic	Middle Callovian, <i>Coronatum</i> Chron	Sprey (2002)
<i>Bisatoceras greenei</i>	0.28		Bisatoceratidae	USA			Mississippian	Miller & Unklesbay (1943)
<i>Bisatoceras</i> sp.	0.34	0.62	Bisatoceratidae	USA			Pennsylvanian Moscovian	Tanabe <i>et al.</i> (1994)
<i>Boreomeekoceras keyserlingi</i>	0.41	0.84	Meekoceratidae	Far East			Triassic Late Olenekian	Zakharov (1978)
<i>Boreophylloceras praeinfundibulum</i>	1.54		Boreophylloceratidae	NE Siberia	Temperate	Cretaceous	Late Berriasian, <i>Mesezhnikovi</i> Chron	Repin <i>et al.</i> 1998
<i>Boreophylloceras</i> sp.	1.365		Boreophylloceratidae	Taimyr	Temperate	Cretaceous	Late Berriasian	Drushchits & Doguzhaeva (1981)
<i>Brasilia bradfordensis</i>	0.5		Graphoceratidae	Caucasus	Subtropical or Tropical	Jurassic	<i>Bradfordensis</i> Z., M. Aalenian	Kvantaliani <i>et al.</i> (1999)
<i>Bredya subinsignis</i> [M]	0.5		Graphoceratidae	England	Subtropical or Tropical	Jurassic	E. Aalenian	Senior (1977)
<i>Bredya subinsignis</i> [m]	0.38		Graphoceratidae	England	Subtropical or Tropical	Jurassic	E. Aalenian	Senior (1977)
<i>Brightia canaliculata</i>	0.39		Oppeliidae	France	Subtropical or Tropical	Jurassic	Late Callovian, <i>athleta</i> Z.	Rouget & Neige (2001)
<i>Brightia glypta</i>	0.329		Oppeliidae	England	Subtropical or Tropical	Jurassic	Late Callovian, <i>athleta</i> Z.	Palframan (1969)
<i>Brightia</i> sp.	0.35		Oppeliidae	Central Russia	Subtropical or Tropical	Jurassic	Middle Callovian (<i>Coronatum</i> Chron) – Late Callovian (<i>Athleta</i> Chron)	Sprey (2002)
<i>Cadoceras elatmae</i>	0.655	1	Cardiocerataidae	Central Russia	Subtropical or Tropical	Jurassic	Early Callovian, <i>Elatmae</i> Chron	Bodylevsky (1925)
<i>Cadoceras tchefkini</i>	0.5		Cardiocerataidae	Central Russia	Subtropical or Tropical	Jurassic	Early Callovian, <i>Calloviense</i> Chron	Drushchits <i>et al.</i> (1976)
<i>Callihoplites</i> sp.	0.525		Hoplitaceae	Mangyshlak	Subtropical or Tropical	Cretaceous	Late Albian	Mikhailova (1974)
<i>Calyoceras orientale</i>	0.54		Acanthoceratidae	Japan	Subtropical or Tropical	Cretaceous	Middle Cenomanian	Shigeta (1993)
<i>Canadoceras cossmati</i>	0.51		Pachydiscidae	Japan	Subtropical or Tropical	Cretaceous	Early Campanian	Shigeta (1993)
<i>Canadoceras mysticum</i>	0.58		Pachydiscidae	Japan	Subtropical or Tropical	Cretaceous	Early Campanian	Shigeta (1993)
<i>Cardioceras arcticum</i>	0.6		Cardiocerataidae	N Siberia	Temperate	Jurassic	Early Oxfordian, <i>Cordatum</i> Chron	Knyazev (1975)
<i>Cardioceras cordatum</i>	0.6		Cardiocerataidae	N Siberia	Temperate	Jurassic	Early Oxfordian, <i>Cordatum</i> Chron	Knyazev (1975)
<i>Cardioceras mountjoi</i>	0.6		Cardiocerataidae	N Siberia	Temperate	Jurassic	Early Oxfordian, <i>Cordatum</i> Chron	Knyazev (1975)
<i>Cardioceras percaelatum</i>	0.6		Cardiocerataidae	N Siberia	Temperate	Jurassic	Early Oxfordian, <i>Cordatum</i> Chron	Knyazev (1975)
<i>Castanyiceras parvulum</i>	0.43		Lytoceratidae	France	Subtropical or Tropical	Jurassic	Early Pliensbachian	Rakus & Guex (2002)
<i>Catacoeloceras crassum</i>	0.8		Dactylioceratidae	N Siberia/NE Russia	Temperate	Jurassic	Middle Toarcian	Knyazev <i>et al.</i> (1993)
<i>Ceratites compressus</i>	0.3		Ceratitidae	Germany	Subtropical or Tropical	Triassic	Latest Anisian, <i>Ceratites compressus</i> Chron	Rein (2006)
<i>Ceratites</i> sp.	0.5		Ceratitidae	Germany	Subtropical or Tropical	Triassic	Late Anisian, <i>Ceratites spinosus</i> Chron	Rein (2005)
<i>Cheloniceris intermedium</i>	0.51		Cheloniceratidae	Caucasus	Subtropical or Tropical	Cretaceous	Late Aptian	Mikhailova (1960)
<i>Choffania mutatus</i>	0.44		Perisphinctidae	Central Russia	Subtropical or Tropical	Jurassic	Early Callovian, <i>Enodatum</i> Chron	Kvantaliani <i>et al.</i> (1999)
<i>Chondroceras</i> sp.	0.5	0.8	Sphaeroceratidae	British Columbia	Subtropical or Tropical	Jurassic	Early Bajocian, late <i>Humpressianum</i> Chron	Hall & Westermann (1980)
<i>Cladiscites</i> sp.	0.42		Cladiscitidae	Cosmopolite			Triassic	Spath (1950)
<i>Cleoniceras mangyshlakense</i>	0.5		Hoplitaceae	Mangyshlak	Subtropical or Tropical	Cretaceous	Early Albian	Mikhailova (1973c)
<i>Cleoniceras planum</i>	0.55		Hoplitaceae	Mangyshlak	Subtropical or Tropical	Cretaceous	Early Albian	Mikhailova (1973c)
<i>Cleoniceras renatae</i>	0.5		Hoplitaceae	Mangyshlak	Subtropical or Tropical	Cretaceous	Early Albian	Mikhailova (1973c)
<i>Cleoniceras tenuis</i>	0.5		Hoplitaceae	Mangyshlak	Subtropical or Tropical	Cretaceous	Early Albian	Mikhailova (1973c)
<i>Coeloceras crosbeyi</i>	0.7		Dactylioceratidae	N Siberia/NE Russia	Temperate	Jurassic	Early Toarcian	Knyazev <i>et al.</i> (1993)
<i>Collignoniceras woollgari</i>	0.437	0.82	Collignoniceratidae	Hokkaido	Subtropical or Tropical	Cretaceous	Middle Turonian	Tanabe <i>et al.</i> (1979)
<i>Colombiceras sinzovi</i>	0.36		Acanthohoplitidae	Caucasus	Subtropical or Tropical	Cretaceous	Late Aptian	Mikhailova (1960)

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<i>Colombiceras</i> sp.	0.38		Acanthoplitidae	Caucasus	Subtropical or Tropical	Cretaceous	Middle Aptian	Drushchits & Doguzhaeva (1981)
<i>Columbites ussuriensis</i>	0.46	0.73	Columbitidae	Far East		Triassic	Late Olenekian	Zakharov (1978)
<i>Convoluticeras lardeuxi</i>	0.8	1.8	Mimoceratacea	France		Devonian	Emsian	Erben (1964)
<i>Coroniceras reynsei</i>	0.3	0.59	Psiloceratacea	USA	Subtropical or Tropical	Jurassic	Sinemurian	Landman <i>et al.</i> (1996)
<i>Costelioceras</i> sp.	0.8		Graphoceratidae	Caucasus	Subtropical or Tropical	Jurassic	Aalenian (early–middle)	Khvantaliani <i>et al.</i> 1999
<i>Craspedites</i> sp.	0.53		Craspeditidae	Central Russia	Subtropical or Tropical	Jurassic	Late Volgian?	Drushchits <i>et al.</i> 1985
<i>Craspedodiscus discofalcatus</i>	0.625		Simbirskitidae	Volga	Subtropical or Tropical	Cretaceous	Late Hauterivian, <i>Discofalcatus</i> Chron	Drushchits & Doguzhaeva (1981)
<i>Creniceras renggeri</i>	0.28	0.55	Oppeliidae	England	Subtropical or Tropical	Jurassic	Early Oxfordian, <i>Mariae</i> Chron	Palframan (1966)
<i>Crimites elkoensis</i>	0.37	0.65	Adrianitidae	USA		Permian	Middle	Tanabe <i>et al.</i> (1994)
<i>Crimites krotowi</i>	0.365	0.77	Adrianitidae	S. Ural		Permian	Artinskian	Bogoslovskaya (1951)
<i>Cyrtoclymenia frechi</i>	0.545	0.975	Cyrtoclymeniidae			Devonian	Famenian, <i>Prolobites delphinus</i> Z.	Bogoslovsky (1981)
<i>Czekanovskites decipiens</i>	0.345	0.6	Longobarditidae	Taymyr	Temperate	Triassic	Middle Anisian	Alekseyev <i>et al.</i> (1984)
<i>Czekanovskites hayesi</i>	0.33	0.6	Longobarditidae	Taymyr	Temperate	Triassic	Middle Anisian	Alekseyev <i>et al.</i> (1984)
<i>Czekanowskites rieberi</i>	0.39	0.8	Danubitidae		Temperate	Triassic	Lower Anisian	Landman <i>et al.</i> (1996)
<i>Dactylioceras athleticum</i>	1		Dactylioceratidae	N Siberia/NE Russia	Temperate	Jurassic	Early Toarcian	Knyazev <i>et al.</i> (1993)
<i>Dactylioceras commune</i>	1.04		Dactylioceratidae	Siberia	Temperate	Jurassic	Middle Toarcian	Kutygin (2009)
<i>Damesites ainianum</i>	0.365	0.7	Desmoceratidae		Subtropical or Tropical	Cretaceous	Turonian	Tanabe <i>et al.</i> (1979)
<i>Damesites ainuanus</i>	0.378	0.73	Desmoceratidae	Hokkaido	Subtropical or Tropical	Cretaceous	Middle Turonian	Tanabe <i>et al.</i> (1979)
<i>Damesites damesi</i>	0.46		Desmoceratidae	Japan	Subtropical or Tropical	Cretaceous	Early Santonian	Shigeta (1993)
<i>Damesites damesi</i>	0.44	0.87	Desmoceratidae	Hokkaido	Subtropical or Tropical	Cretaceous	Early Santonian	Tanabe <i>et al.</i> (1979)
<i>Damesites hetonaiensis</i>	0.44		Desmoceratidae	Japan	Subtropical or Tropical	Cretaceous	Early Maastrichtian	Shigeta (1993)
<i>Damesites latidorsatus</i>	0.41	0.85	Desmoceratidae		Subtropical or Tropical	Cretaceous	Albian	Dauphin (1975)
<i>Damesites semicostatus</i>	0.42	0.84	Desmoceratidae	Hokkaido	Subtropical or Tropical	Cretaceous	Early Santonian	Tanabe <i>et al.</i> (1979)
<i>Damesites sugata</i>	0.43		Desmoceratidae	Japan	Subtropical or Tropical	Cretaceous	Coniacian	Shigeta (1993)
<i>Damesites sugata</i>	0.47		Desmoceratidae	Sakhalin	Subtropical or Tropical	Cretaceous	Turonian	Zakharov (1978)
<i>Daraelites elegans</i>	0.45	1.06	Medlicottiidae	S. Ural		Permian	Artinskian	Bogoslovskaya (1951)
<i>Darkaoceras meridionale</i>	0.7		Taouzutidae	Morocco		Devonian	Givetian	Bockwinkel <i>et al.</i> (2009)
<i>Deshayesites</i> spp.	0.52		Deshayesitidae	Volga, N Caucasus	Subtropical or Tropical	Cretaceous	Early Aptian, <i>Deshausi</i> Chron	Drushchits & Doguzhaeva (1981)
<i>Desmoceras ezoanum</i>	0.64		Desmoceratidae	Japan	Subtropical or Tropical	Cretaceous	Early Cenomanian	Shigeta (1993)
<i>Desmoceras japonicum</i>	0.565	0.97	Desmoceratidae		Subtropical or Tropical	Cretaceous	Cenomanian	Landman <i>et al.</i> (1996)
<i>Desmoceras kossmati</i>	0.44		Desmoceratidae	Japan	Subtropical or Tropical	Cretaceous	Early Cenomanian	Shigeta (1993)
<i>Desmoceras</i> sp.	0.66		Desmoceratidae	Crimea	Subtropical or Tropical	Cretaceous	Middle Albian, <i>Hoplites dentatus</i> Chron	Drushchits & Doguzhaeva (1981)
<i>Desmophyllites</i>	0.5		Desmoceratidae	Sakhalin	Subtropical or Tropical	Cretaceous	Campanian, Turonian	Zakharov (1978)
<i>Desmophyllites diphilloides</i>	0.4		Desmoceratidae	Japan	Subtropical or Tropical	Cretaceous	Late Campanian	Shigeta (1993)
<i>Diadochoceras nodosocostatiforme</i>	0.37		Acanthoplitidae	Japan	Subtropical or Tropical	Cretaceous	Late Aptian	Shigeta (1993)
<i>Diadochoceras</i> sp. 1	0.525		Parahoplidae	Turkmenia	Subtropical or Tropical	Cretaceous	Late Aptian	Mikhailova (1976)
<i>Diadochoceras</i> sp. 2	0.415		Acanthoplitidae	Caucasus	Subtropical or Tropical	Cretaceous	Late Aptian	Drushchits & Doguzhaeva (1981)
<i>Dieneroceras chaoi</i>	0.29		Dieneroceratidae	Far East		Triassic	Early Olenekian	Zakharov (1974)
<i>Dieneroceras spathi</i>	0.29	0.67	Dieneroceratidae	Nevada		Triassic	Early Olenekian	Zakharov (1974), Landman <i>et al.</i> (1996)
<i>Dimorpholites tethydis</i>	0.58		Hopliteaceae	Turkmenia	Subtropical or Tropical	Cretaceous	Late Albian	Mikhailova (1975)
<i>Discophyllites</i>	0.42		Discophyllitidae	Cosmopolite		Triassic	Carnian–Norian	Spath (1950)
<i>Discoscaphites conradi</i>	0.4	0.76	Scaphitidae	USA, Dakota	Subtropical or Tropical	Cretaceous	Maastrichtian	Landman & Waage (1993)
<i>Discoscaphites rossi</i>	0.34	0.69	Scaphitidae	USA, Dakota	Subtropical or Tropical	Cretaceous	Maastrichtian	Landman & Waage (1993)
<i>Distichoceras bicostatatum</i>	0.255		Oppeliidae	England	Subtropical or Tropical	Jurassic	Late Callovian, <i>lamberti</i> Z.	Palframan (1967)
<i>Dombarites choctawensis</i>	0.555	1.08	Goniatitidae	USA		Mississippian	Serpukhovian	Tanabe <i>et al.</i> (1994)
<i>Dorsoplanites gracilis</i>	0.47		Dorsoplanitidae	Subpolar Ural	Temperate	Jurassic	Middle Volgian, <i>Ilovaiskii</i> Chron	Kvantaliani <i>et al.</i> (1999), Lominadze & Kvantaliani (1986)
<i>Dorsoplanites sibirjakovi</i>	0.6		Dorsoplanitidae	Subpolar Ural	Temperate	Jurassic	Middle Volgian, <i>Maximus</i> Chron	Mikhailov (1966)
<i>Edmooroceras plummeri</i>		1.04	Girtyoceratidae	USA		Mississippian	Serpukhovian	Tanabe <i>et al.</i> (1994)
<i>Eleganticeras elegantulum</i>	0.41	0.84	Hildoceratacea	Germany		Jurassic	E. Toarcian	Tanabe & Ohtsuka (1985)
<i>Eoamalteus multicostatus</i>	0.5		Dubariceratidae	Argentina	Subtropical or Tropical	Jurassic	Early Pliensbachian	Hillebrandt (2006)

Species	Protoconch, mm	Ammonitella, mm	Family or Superfamily	Location	Climate (if known)	Period	Age (stage)	Source
<i>Eogaudriceras</i> aff. <i>aurarium</i>	0.51		Tetragonitidae	Japan	Subtropical or Tropical	Cretaceous	Early Cenomanian	Shigeta (1993)
<i>Eogunmarites unicus</i>	0.52		Kossmaticeratinae	Japan	Subtropical or Tropical	Cretaceous	Middle Cenomanian	Shigeta (1993)
<i>Eotetragonites balmensis</i>	0.5	0.98	Tetragonitidae	USA	Subtropical or Tropical	Cretaceous	Albian	Landman <i>et al.</i> (1996)
<i>Eothalassoceras inexpectans</i>	0.37	0.66	Thalassoceratidae	USA		Pennsylvanian	Kasimovian–Gzhelian	Tanabe <i>et al.</i> (1994)
<i>Epigonoceras glabrum</i>	0.65		Tetragonitidae	Sakhalin	Subtropical or Tropical	Cretaceous	Santonian–Campanian	Drushchits & Doguzhaeva (1981)
<i>Epihoplites</i>	0.56		Hoplitaceae	Turkmenia	Subtropical or Tropical	Cretaceous	Late Albian	Mikhailova (1975)
<i>Epilaugeites</i>	0.6		Dorsoplanitidae	Subpolar Ural	Temperate	Jurassic	Middle Volgian, <i>Vogulicus</i> Chron	Mikhailov (1966)
<i>Epivirgatites s.l.</i>	0.635		Dorsoplanitidae	Central Russia	Subtropical or Tropical	Jurassic	Middle Volgian, <i>Nikitini</i> Chron	Druschiz <i>et al.</i> (1983)
<i>Euhoplites</i> ex gr. <i>trapezoidalis</i>	0.49		Hoplitaceae	Turkmenia	Subtropical or Tropical	Cretaceous	Late Albian	Mikhailova (1975)
<i>Eupachydiscus haradai</i>	0.525	1.065	Pachydiscidae	Hokkaido	Subtropical or Tropical	Cretaceous	Early Campanian	Tanabe <i>et al.</i> (1979)
<i>Euphyloceras anthulai</i>	0.495		Euphyloceratidae	Caucasus	Subtropical or Tropical	Cretaceous	Middle Aptian	Drushchits & Doguzhaeva (1981)
<i>Euphyloceras californicum</i>	0.38		Euphyloceratidae	USA, California	Subtropical or Tropical	Cretaceous	Late Aptian–early Albian	Murphy & Rodda (2006)
<i>Euphyloceras ponticuli</i>	0.32		Euphyloceratidae	Crimea	Subtropical or Tropical	Cretaceous	Early Barremian	Drushchits 1956
<i>Euphyloceras velledae</i>	0.54		Euphyloceratidae	Japan	Subtropical or Tropical	Cretaceous	Middle Cenomanian	Shigeta (1993)
<i>Eurycephalites gottschei</i>	0.55		Sphaeroceratidae	Argentina	Subtropical or Tropical	Jurassic	lower Callowian	Parent (1997)
<i>Eurystomiceras polyhelictum</i>	0.405		Tetragonitidae	Caucasus	Subtropical or Tropical	Jurassic	Middle Bajocian	Drushchits & Doguzhaeva (1981)
<i>Fagesia peroni</i>	0.35		Acanthocerataceae	Tadzhikistan	Subtropical or Tropical	Cretaceous	Turonian	Mikhailova (1983b)
<i>Fallotites costatus</i>	0.23		Vascoceratidae	Tadzhikistan	Subtropical or Tropical	Cretaceous	Turonian	Mikhailova (1983b)
<i>Flabellisphinctes lateralis</i>	0.41		Perisphinctidae	Central Russia	Subtropical or Tropical	Jurassic	Middle Callovian, <i>Coronatum</i> Chron	Kvantaliani <i>et al.</i> (1999)
<i>Frechites humboldtensis</i>	0.59		Beyrichitidae	N Siberia	Temperate	Triassic	Late Anisian	Arkadiev & Vavilov (1984a)
<i>Frechites nevadanus</i>	0.49	0.75	Beyrichitidae	N Siberia/NE Asia	Temperate	Triassic	Late Anisian, <i>Nevadanus</i> Z.	Vavilov (1992)
<i>Frechites</i> sp.	0.6	1.32	Beyrichitidae	N Siberia	Temperate	Triassic	Late Anisian	Arkadiev & Vavilov (1984a)
<i>Gabbioceras angulatum</i>	0.44	0.88	Tetragonitidae	USA	Subtropical or Tropical	Cretaceous	Albian	Landman <i>et al.</i> (1996)
<i>Gabbioceras latericarinaratum</i>	0.49		Tetragonitidae	Caucasus	Subtropical or Tropical	Cretaceous	Late Aptian	Drushchits & Doguzhaeva (1981)
<i>Gabbioceras michelianum</i>	0.52		Tetragonitidae	Japan	Subtropical or Tropical	Cretaceous	Early Cenomanian	Shigeta (1993)
<i>Gabbioceras</i> sp.	0.555		Tetragonitidae	Kopetdagh	Subtropical or Tropical	Cretaceous	Middle Albian, <i>Hoplites dentatus</i> Chron	Drushchits & Doguzhaeva (1981)
<i>Gaitherites morrowensis</i>	0.42	0.84	Girtyoceratidae	USA		Pennsylvanian	Bashkirian	Tanabe <i>et al.</i> (1994)
<i>Galaticeras aegocerooides</i>	0.43		Lytoceratidae		Subtropical or Tropical	Jurassic	Early Pliensbachian	Rakus & Guex (2002)
<i>Galaticeras subtriangulare</i>	0.45		Lytoceratidae		Subtropical or Tropical	Jurassic	Early Pliensbachian	Rakus & Guex (2002)
<i>Gaudriceras</i> aff. <i>stefanii</i>	0.5		Tetragonitidae	Japan	Subtropical or Tropical	Cretaceous	Middle Cenomanian	Shigeta (1993)
<i>Gaudriceras denseplicatum</i>	0.48		Tetragonitidae	Japan	Subtropical or Tropical	Cretaceous	Middle Turonian	Shigeta (1993)
<i>Gaudriceras striatum</i>	0.71		Tetragonitidae	Japan	Subtropical or Tropical	Cretaceous	Late Campanian	Shigeta (1993)
<i>Gaudriceras tombetsense</i>	0.76		Tetragonitidae	Japan	Subtropical or Tropical	Cretaceous	Early Maastrichtian	Shigeta (1993)
<i>Gaudryceras alamedense</i>	0.56		Tetragonitidae	California		Cretaceous	Campanian	Smith (1898)
<i>Gaudryceras denseplicatum</i>	0.784	1.51	Tetragonitidae	Hokkaido	Subtropical or Tropical	Cretaceous	Middle Turonian–Late Santonian	Tanabe <i>et al.</i> (1979)
<i>Gaudryceras denseplicatum</i>	0.62	1.25	Tetragonitidae	Hokkaido	Subtropical or Tropical	Cretaceous	Early Santonian	Tanabe & Ohtsuka (1985)
<i>Gaudryceras striatum</i>	0.67	1.3	Tetragonitidae	Hokkaido	Subtropical or Tropical	Cretaceous	Cenomanian–Campanian	Tanabe & Ohtsuka (1985)
<i>Gaudryceras tenuiliratum</i>	0.63	1.26	Tetragonitidae	Hokkaido	Subtropical or Tropical	Cretaceous	Middle Campanian	Tanabe & Ohtsuka (1985)
<i>Gaudryceras tenuiliratum</i>	0.768	1.6	Tetragonitidae	Hokkaido	Subtropical or Tropical	Cretaceous	Middle Turonian–Late Santonian	Tanabe <i>et al.</i> (1979)
<i>Gaudryceras tenuiliratum</i> var. <i>ornata</i>	0.714	1.337	Tetragonitidae	Hokkaido	Subtropical or Tropical	Cretaceous	Early Santonian	Tanabe <i>et al.</i> (1979)
<i>Genuclymenia angelini</i>	0.605	1.09	Cymaclymeniidae			Devonian	Famenian, <i>Prolobites delphinus</i> Z.	Bogoslovsky (1981)
<i>Genuclymenia frechi</i>	0.61		Cymaclymeniidae			Devonian	Famenian, <i>Prolobites delphinus</i> Z.	Bogoslovsky (1981)
<i>Girtyoceras meslerianum</i>	0.45	0.96	Girtyoceratidae	USA		Mississippian	Serpukhovian	Tanabe <i>et al.</i> (1994)
<i>Glaphyrites jonesi</i>	0.49		Glaphyritidae	USA		Pennsylvanian	Kasimovian–Gzhelian	Miller & Unklesbay (1943)
<i>Glaphyrites clinei</i>	0.455	0.83	Glaphyritidae	USA		Pennsylvanian	Kasimovian–Gzhelian	Tanabe <i>et al.</i> (1994)
<i>Glaphyrites hyattianus</i>	0.59	1.03	Glaphyritidae	USA		Pennsylvanian	Moscovian	Tanabe <i>et al.</i> (1994)
<i>Glaphyrites jonesi</i>	0.54	0.96	Glaphyritidae	USA		Pennsylvanian	Kasimovian–Gzhelian	Tanabe <i>et al.</i> (1994)
<i>Glaphyrites warei</i>	0.455	0.87	Glaphyritidae	USA		Pennsylvanian	Kasimovian–Gzhelian	Tanabe <i>et al.</i> (1994)
<i>Glaphyrites welleri</i>	0.35	0.81	Glaphyritidae	USA		Pennsylvanian	Moscovian	Tanabe <i>et al.</i> (1994)
<i>Goniatites</i> cf. <i>sphaericus</i>	0.53		Goniatitidae	USA		Mississippian	Viséan	Smith (1897)

Species	Protoconch, mm	Ammonitella, mm	Family or Superfamily	Location	Climate (if known)	Period	Age (stage)	Source
<i>Goniatites crenistria</i>	0.46		Goniatitidae	USA		Mississippian	Viséan	Smith (1903)
<i>Goniatites multiliratus</i>	0.53	0.94	Goniatitidae	USA		Mississippian	Viséan	Tanabe <i>et al.</i> (1994)
<i>Goniatites</i> sp. aff. <i>G. crenistria</i>	0.54	0.98	Goniatitidae	USA		Mississippian	Chesterian/Serpukhovian	Tanabe <i>et al.</i> (1994)
<i>Goniatites sphaericus</i>	0.53		Goniatitidae	USA		Mississippian	Serpukhovian	Perrin-Smith (1903)
<i>Gonioloboceras welleri</i>	0.8	1.92	Gonioloboceratidae	Texas		Pennsylvanian	Gzhelian	Miller & Unklesbay (1943)
<i>Gorgheiceras tuberculatum</i>	0.35		Bouhamidoceratinae	Tunisia	Subtropical or Tropical	Jurassic	Early Pliensbachian	Rakus & Guex (2002)
<i>Grambergia taymyrensis</i>	0.525	0.915	Longobarditidae	Taymyr	Temperate	Triassic	Early Anisian	Alekseyev <i>et al.</i> (1984)
<i>Gymnotoceras</i>	0.35		Beyrichiidae			Triassic	Late Anisian	Spath (1950)
<i>Gymnotoceras falciforme</i>	0.38	0.69	Beyrichitidae	N Siberia	Temperate	Triassic	Late Anisian	Arkadiev & Vavilov (1984a)
<i>Gymnotoceras meeki</i>	0.42	0.725	Beyrichitidae	N Siberia	Temperate	Triassic	Late Anisian	Arkadiev & Vavilov (1984a)
<i>Gymnotoceras rotelliforme</i>	0.45		Beyrichitidae	N Siberia	Temperate	Triassic	Late Anisian	Arkadiev & Vavilov (1984a)
<i>Gyroceratites gracilis</i>	0.9	1.5	Mimoceratacea	Germany		Devonian	Emsian	Erben (1964)
<i>Hauericeras angustum</i>	0.42		Desmoceratidae	Japan	Subtropical or Tropical	Cretaceous	Early Santonian	Shigeta (1993)
<i>Hauericeras gardeni</i>	0.43	0.71	Desmoceratidae	Japan	Subtropical or Tropical	Cretaceous	Santonian	Tanabe & Ohtsuka (1985), Tanabe <i>et al.</i> (1979)
<i>Hedenstroemia hedenstroemi</i>	0.63		Hedenstromidae	NE Russia	Temperate	Triassic	Early Olenekian	Zakharov (1974)
<i>Hedenstroemia mojsisovicsi</i>	0.49		Hedenstromidae	NE Russia	Temperate	Triassic	Early Olenekian	Zakharov (1974)
<i>Hegaratia balkensis</i>	0.25		Neocomitidae	Crimea	Subtropical or Tropical	Cretaceous	Late Berriasian	Khvantaliani (1999)
<i>Hemiprionites contortus</i>	0.5		Prionitidae	Far East		Triassic	Early Olenekian	Zakharov (1978)
<i>Hemiprionites dunajensis</i>	0.54		Prionitidae	Far East		Triassic	Early Olenekian	Zakharov (1978)
<i>Holcophylloceras costisparsum</i>	0.64		Holcophylloceratidae	NE Siberia	Temperate	Jurassic	Latest Bajocian/Earliest Bathonian, <i>Arctocephalites arcticus</i> Chron, <i>Oxycerites jugatus</i> SubChron	Repin (2005)
<i>Holcophylloceras</i> sp.	0.525		Holcophylloceratidae	Crimea-Caucasus	Subtropical or Tropical	Jurassic	Late Bajocian	Drushchits & Doguzhaeva (1981)
<i>Homoceras</i> sp.	0.35	0.64	Goniatitidae	U.K.		Mississippian		Tanabe & Ohtsuka (1985)
<i>Hoplites benettianus</i>	0.5		Hoplitidae	Turkmenia	Subtropical or Tropical	Cretaceous	Middle Albian, <i>Hoplites dentatus</i> Chron	Mikhailova (1973b)
<i>Hoplites dentatus</i>	0.66		Hoplitidae	Turkmenia	Subtropical or Tropical	Cretaceous	Middle Albian, <i>Hoplites dentatus</i> Chron	Mikhailova (1973b)
<i>Hoploscaphites comprimus</i>		0.66	Scaphitidae	Europe	Subtropical or Tropical	Cretaceous	Maastrichtian	Landman & Waage (1993)
<i>Hoploscaphites nicolettii</i>	0.43	0.77	Scaphitidae	Europe	Subtropical or Tropical	Cretaceous	Maastrichtian	Landman (1987)
<i>Horioceras baugieri</i>	0.27		Oppeliidae	England	Subtropical or Tropical	Jurassic	Late Callovian, <i>lamberti</i> Z.	Palframan (1967)
<i>Hypacanthoplites</i> sp. 1	0.64		Parahoplitidae	N. Caucasus	Subtropical or Tropical	Cretaceous	Late Aptian	Mikhailova (1976)
<i>Hypacanthoplites</i> sp. 2	0.405		Acanthohoplitidae	Caucasus/Mangyshlak	Subtropical or Tropical	Cretaceous	Latest Aptian	Drushchits & Doguzhaeva (1981)
<i>Hypacanthoplites</i> sp. 3	0.49		Acanthohoplitidae	Caucasus/Mangyshlak	Subtropical or Tropical	Cretaceous	Latest Aptian	Drushchits & Doguzhaeva (1981)
<i>Hypacanthoplites subcornerianus</i>	0.5		Acanthohoplitidae	Japan	Subtropical or Tropical	Cretaceous	Aptian	Shigeta (1993)
<i>Hypophylloceras hetonaiense</i>	0.52		Phylloceratidae	Japan	Subtropical or Tropical	Cretaceous	Early Maastrichtian	Shigeta (1993)
<i>Hypophylloceras ramosum</i>	0.63	1.03	Phylloceratidae	Hokkaido	Subtropical or Tropical	Cretaceous	?Campanian	Tanabe & Ohtsuka (1985)
<i>Hypophylloceras</i> sp.	0.66		Phylloceratidae	Sakhalin	Subtropical or Tropical	Cretaceous	Campanian	Drushchits & Doguzhaeva (1981)
<i>Hypophylloceras subramosum</i>	0.57	0.99	Phylloceratidae	Hokkaido	Subtropical or Tropical	Cretaceous	MiddleTuronian	Shigeta (1993), Tanabe & Ohtsuka (1985)
<i>Hypoturrilites gravesianus</i>	0.43	1	Turrilitidae	Kopetdagh	Subtropical or Tropical	Cretaceous	Early Cenomanian, <i>Mantelliceras mantelli</i> Chron	Atabekyan & Mikhailova (1976)
<i>Hysteroeras orbignyi</i>	0.25		Acanthocerataceae	Tuarkyr	Subtropical or Tropical	Cretaceous	Late Albian	Mikhailova (1983a)
<i>Ilowaiskya schashkovae</i>	0.6		Virgatitidae	Orenburg	Subtropical or Tropical	Jurassic	Early Volgian, <i>Pseudoscythica</i> Chron	Mikhailov (1964)
<i>Indigirites constantis</i>	0.45	0.67	Nathorstitidae	N Siberia/NE Asia	Temperate	Triassic	Late Ladinian, <i>omolajensis</i> Z.	Vavilov (1992)
<i>Indigirites krugi</i>	0.36	0.64	Nathorstitidae	N Siberia	Temperate	Triassic	Late Ladinian	Arkadiev & Vavilov (1984b)
<i>Indigirites tozeri</i>	0.325	0.535	Nathorstitidae	Hokkaido	Temperate	Triassic	Botneheia Formation	Landman <i>et al.</i> (1996)
<i>Indigirophyllites bytschkovi</i>	0.7	1.25	Ussuritidae	N Siberia/NE Asia	Temperate	Triassic	Late Anisian, <i>spectori</i> Z.	Vavilov (1992)
<i>Indigirophyllites spitsbergensis</i>	0.46	1.02	Ussuritidae		Temperate	Triassic	Botneheia Formation	Landman <i>et al.</i> (1996)
<i>Indosphinctes nikitinoensis</i>	0.43		Perisphinctidae	Central Russia	Subtropical or Tropical	Jurassic	Middle Callovian	Kvantaliani <i>et al.</i> (1999)
<i>Isohomoceras subglobosum</i>	0.53	0.91	Homoceratidae	UK		Pennsylvanian	Lower Bashkirian	Tanabe <i>et al.</i> (1994)
<i>Jeletzkytes nebrascensis</i>	0.41	0.68	Scaphitidae	USA (Dacota)	Subtropical or Tropical	Cretaceous	Maastrichtian	Landman & Waage (1993)
<i>Jeletzkytes spedeni</i>	0.41	0.76	Scaphitidae	USA (Dacota)	Subtropical or Tropical	Cretaceous	Maastrichtian	Landman & Waage (1993)
<i>Joannites</i>	0.6		Joannitidae		Subtropical or Tropical	Triassic	Anisian–Carnian	Spath (1950)
<i>Karangatites evolutus</i>	0.27	0.76	Meekoceratidae	N Siberia/NE Asia	Temperate	Triassic	Earliest Anisian, <i>taymyrensis</i> Z.	Vavilov (1992)
<i>Kargalites (Kargalites) typicus</i>	0.41	0.88	Marathonitidae	Russia		Permian	Artinskian	Bogoslovskaya (1951)

Species	Protoconch, mm	Ammonitella, mm	Family or Superfamily	Location	Climate (if known)	Period	Age (stage)	Source
<i>Karsteniceras obatai</i>	0.35		n/a	Japan	Subtropical or Tropical	Cretaceous	Barremian	Shigeta (1993)
<i>Kashpurites fulgens</i>	0.715		Craspeditidae	Central Russia	Subtropical or Tropical	Jurassic	Late Volgian, <i>Fulgens</i> Chron	Drushchits <i>et al.</i> 1985
<i>Keyserlingites middendorfi</i>	0.64	1.3	Keyserlingitidae	N Siberia	Temperate	Triassic	Late Olenekian	Zakharov (1978)
<i>Keyserlingites</i> sp.	0.58	1.3	Keyserlingitidae	N Siberia	Temperate	Triassic	Late Olenekian	Zakharov (1970)
<i>Kingites</i> sp.	0.42	0.68	Paranoritidae	NE Russia, Far East	Temperate	Triassic	Induan	Zakharov (1974)
<i>Kitchinites ishikawai</i>	0.53	1.15	Desmoceratidae	Hokkaido	Subtropical or Tropical	Cretaceous	Early Santonian	Tanabe <i>et al.</i> (1979), Shigeta (1993)
<i>Koenerites styliophilus styliophilus</i>	0.68		Koeneritidae	USA		Devonian	Frasnian	House & Kirchgasser (2008)
<i>Kolymophylloceras turumchense</i>	0.64		Yukagiritidae	NE Russia	Temperate	Jurassic	Hettangian, <i>Viligense</i> Chron	Repin <i>et al.</i> (1998)
<i>Kosmoceras jason</i>	0.42		Kosmoceratidae	Central Russia	Subtropical or Tropical	Jurassic	Middle Callovian, <i>jason</i> Z.?	Drushchits <i>et al.</i> (1976)
<i>Kosmoceras</i> spp.	0.42		Kosmoceratidae	Central Russia	Subtropical or Tropical	Jurassic	Late Callovian, <i>Athleta</i> Chron	Sprey (2002)
<i>Kossmatella agassiziana</i>	0.595		Tetragonitidae	Crimea	Subtropical or Tropical	Cretaceous	Middle Albian	Drushchits & Doguzhaeva (1981)
<i>Latanarcestes noeggerati</i>	0.69		Latanarcestidae			Devonian	Upper Emsian	De Baets <i>et al.</i> (2012)
<i>Laugeites borealis</i>	0.51		Dorsoplanitidae	Subpolar Ural	Temperate	Jurassic	Middle Volgian, “ <i>Groenlandicus</i> ” Chron	Kvantaliani <i>et al.</i> (1999)
<i>Leioceras opalinum</i>	0.44		Graphoceratidae	Caucasus	Subtropical or Tropical	Jurassic	E. Aalenian, <i>opalinum</i> Z.	Kvantaliani <i>et al.</i> (1999)
<i>Leiophylloceras calypso</i>	0.4		Phylloceratidae	Crimea	Subtropical or Tropical	Cretaceous	Early–Middle Berriasian	Arkadiev (2002)
<i>Lenotrophites solitarius</i>	0.32	0.62	Longobarditidae	Taymyr	Temperate	Triassic	Early Anisian	Alekseyev <i>et al.</i> (1984)
<i>Lenotrophites</i> sp.	0.38	0.715	Longobarditidae	Taymyr	Temperate	Triassic	Early Anisian	Alekseyev <i>et al.</i> (1984)
<i>Lenotrophites tardus</i>	0.33	0.605	Longobarditidae	Taymyr	Temperate	Triassic	Early Anisian	Alekseyev <i>et al.</i> (1984)
<i>Lenotropites boschoensis</i>	0.38	0.725	Longobarditidae	N Siberia/NE Asia	Temperate	Triassic	Early Anisian, <i>tardus</i> Z.	Vavilov (1992)
<i>Leymeriella andrussovi</i>	0.4		Hoplitaceae	Kopetdagh	Subtropical or Tropical	Cretaceous	Early Albian	Mikhailova (1973a)
<i>Leymeriella ex gr. pseudoregularis</i>	0.4		Hoplitaceae	Mangyshlak	Subtropical or Tropical	Cretaceous	Early Albian	Mikhailova (1973a)
<i>Leymeriella tardefurcata</i>	0.4		Hoplitaceae	Mangyshlak	Subtropical or Tropical	Cretaceous	Early Albian	Mikhailova (1973a)
<i>Lomonossovella s.l.</i>	0.59		Dorsoplanitidae	Central Russia	Subtropical or Tropical	Jurassic	Middle Volgian, <i>Nikitini</i> Chron	Druschiz <i>et al.</i> (1983)
<i>Longobardites nevadanus</i>	0.43	0.88	Longobarditidae	Taymyr	Temperate	Triassic	Late Anisian	Alekseyev <i>et al.</i> (1984)
<i>Ludwigia</i> sp.	0.45		Graphoceratidae	Caucasus	Subtropical or Tropical	Jurassic	Aalenian	Kvantaliani <i>et al.</i> (1999)
<i>Luppovia dotshamensis</i>	0.46	0.8	Ancyloceratidae	Turkmenia	Subtropical or Tropical	Cretaceous	Middle Aptian	Kakabadze <i>et al.</i> (1978)
<i>Luppovia</i> sp.	0.5		Ancyloceratidae	Turkmenia	Subtropical or Tropical	Cretaceous	Middle Aptian	Doguzhaeva & Mikhailova (1982)
<i>Mantelliceras japonicum</i>	0.48		Acanthoceratidae	Japan	Subtropical or Tropical	Cretaceous	Early Cenomanian	Shigeta (1993)
<i>Mantelliceras mantelli</i>	0.35		Acanthocerataceae	Tuarkyr	Subtropical or Tropical	Cretaceous	Cenomanian	Mikhailova (1983a)
<i>Manticoceras adorfense</i>	0.74		Gephuroceratidae	Germany		Devonian	Frasnian	Clausen (1969)
<i>Manticoceras affine</i>	0.925		Gephuroceratidae	Germany		Devonian	Frasnian	Clausen (1969)
<i>Manticoceras bullatum</i>	0.76	1.2	Gephuroceratidae	Germany		Devonian	Frasnian	Clausen (1969)
<i>Manticoceras cordatum</i>	0.755		Gephuroceratidae	Germany		Devonian	Frasnian	Clausen (1969)
<i>Manticoceras crassum</i>	0.755		Gephuroceratidae	Germany		Devonian	Frasnian	Clausen (1969)
<i>Manticoceras drevermanni</i>	0.73		Gephuroceratidae	Germany		Devonian	Frasnian	Clausen (1969)
<i>Manticoceras galeatum</i>	0.8		Gephuroceratidae	Germany		Devonian	Frasnian	Clausen (1969)
<i>Manticoceras intumescens</i>	0.725		Gephuroceratidae	Germany		Devonian	Frasnian	Clausen (1969)
<i>Manticoceras orbiculum</i>	0.78		Gephuroceratidae	Germany		Devonian	Frasnian	Clausen (1969)
<i>Manticoceras serratum</i>	0.665		Gephuroceratidae	Germany		Devonian	Frasnian	Clausen (1969)
<i>Manticoceras</i> sp.		1.3	Gephuroceratidae			Devonian	Frasnian	Ruzhencev & Shimansky (1954)
<i>Manticoceras</i> sp. 2	0.65		Gephuroceratidae	France		Devonian	Frasnian	Korn & Klug (2007)
<i>Marschallites compressus</i>	0.5		Kossmaticeratidae	Japan	Subtropical or Tropical	Cretaceous	Early Cenomanian	Shigeta (1993)
<i>Masonoceras kentuckiensis</i>	0.45		Goniatitidae	USA		Mississippian	Upper Tournaisian–lower Viséan	Miller & Unklesbay (1943)
<i>Medlicottia orbignyana</i>	0.34	0.72	Medlicottiidae			Permian	Artinskian	Bogoslovskaya (1951)
<i>Meekoceras subcristatum</i>	0.44		Meekoceratidae	Far East		Triassic	Early Olenekian	Zakharov (1978)
<i>Megaphyllites prometheus</i>	0.565	0.99	Megaphyllitidae			Triassic	Late Anisian	Landman <i>et al.</i> (1996)
<i>Melchiorites</i> sp.	0.34		Desmoceratidae	Caucasus	Subtropical or Tropical	Cretaceous	Late Aptian	Drushchits & Doguzhaeva (1981)
<i>Menuites pusillus</i>	0.5	0.87	Desmoceratidae		Subtropical or Tropical	Cretaceous	Turonian	Tanabe <i>et al.</i> (1979)
<i>Mesopuzosia pacifica</i>	0.451	0.829	Desmoceratidae	Japan	Subtropical or Tropical	Cretaceous	Middle Turonian	Shigeta (1993), Tanabe <i>et al.</i> (1979)
<i>Mesopuzosia yubarensis</i>	0.34		Desmoceratidae	Japan	Subtropical or Tropical	Cretaceous	Coniacian	Shigeta (1993)

Species	Protoconch, mm	Ammonitella, mm	Family or Superfamily	Location	Climate (if known)	Period	Age (stage)	Source
<i>Metalegoceras baylorense</i>	0.45	0.85	Metalegoceratidae	USA		Permian	Middle	Tanabe <i>et al.</i> (1994)
<i>Metaplacenticeras (?) pacificum</i>	0.56		Hoplitaceae	California		Cretaceous	Campanian	Smith (1900)
<i>Metaplacenticeras subtilistriatum</i>	0.63		Placenticeratidae	Japan	Subtropical or Tropical	Cretaceous	Late Campanian	Shigeta (1993)
<i>Metaplacenticeras subtilistriatum</i>	0.532	1.088	Placenticeratidae	Hokkaido	Subtropical or Tropical	Cretaceous	Early Campanian	Tanabe <i>et al.</i> (1979)
<i>Mexioceras guadalupense</i>	0.52	0.93	Cyclolobidae	USA		Permian	Middle	Tanabe <i>et al.</i> (1994)
<i>Microdesmoceras tetragonum</i>	0.53		Desmoceratidae	Japan	Subtropical or Tropical	Cretaceous	Early Cenomanian	Shigeta (1993)
<i>Mimagoniatites fecundus</i>	1.175	2.1	Mimagoniatitidae	France		Devonian	Emsian	Erben (1964)
<i>Mimosphinctes zlichovensis</i>	1.31		Mimosphinctidae			Devonian	Emsian–early	De Baets <i>et al.</i> (2012)
<i>Monophyllites</i> sp.	0.425		Ussuritidae	Far East		Triassic	Anisian	Zakharov (1974)
<i>Nannites simplex</i>	0.38		Nannitidae	Far East		Triassic	Early Olenekian	Zakharov (1978)
<i>Nathorstites agratassensis</i>	0.36	0.66	Nathorstitidae	N Siberia	Temperate	Triassic	Late Ladinian	Arkadiev & Vavilov (1984b)
<i>Nathorstites gibbosus</i>	0.39	0.615	Nathorstitidae	Taymyr	Temperate	Triassic	Early Carnian	Alekseyev <i>et al.</i> (1984)
<i>Nathorstites lenticulatis</i>	0.26	0.54	Nathorstitidae	N Siberia	Temperate	Triassic	Late Ladinian	Arkadiev & Vavilov (1984b)
<i>Nathorstites mcconnelli</i>	0.465	0.765	Nathorstitidae	Taymyr	Temperate	Triassic	Late Ladinian	Alekseyev <i>et al.</i> (1984)
<i>Neoasteria reliqua</i>	0.38		Desmoceratidae	Caucasus	Subtropical or Tropical	Cretaceous	Late Aptian	Kvantaliani <i>et al.</i> (1999)
<i>Neoglyphioceras abramovi</i>	0.51	0.93	Neoglyphiceratidae	Russia		Mississippian	Upper Viséan–Lower Serphukhovian	Zakharov (1978)
<i>Neopronorites permicus</i>	0.5	0.98	Pronoritidae	Russia		Permian	Artinskian	Bogoslovskaya (1951)
<i>Neoprotrachyceras</i> sp.	0.48	0.57	Trachiceratidae	N Siberia/NE Asia	Temperate	Triassic	Early Carnian, <i>omkutchanikum</i> Z.	Vavilov (1992)
<i>Neopuzosia ishikawai</i>	0.42		Desmoceratidae	Sakhalin	Subtropical or Tropical	Cretaceous	Campanian	Zakharov (1978)
<i>Neosirenites irregularis</i>	0.37	0.65	Trachiceratidae	N Siberia/NE Asia	Temperate	Triassic	Late Carnian, <i>penlastichus</i> Z.	Vavilov (1992)
<i>Nevadisculites smithi</i>	0.36	0.7	Proarcestidae	Nevada		Triassic	Middle Anisian	Arkadiev <i>et al.</i> (1993)
<i>Nevadisculites taylori</i>	0.4	1	Proarcestidae	Nevada		Triassic	Middle Anisian	Arkadiev <i>et al.</i> (1993)
<i>Nikitinoceras (Costamenjaites) jucundus</i>	0.5		Craspeditidae	NE Siberia	Temperate	Cretaceous	Early Valanginian	Klimova (1987)
<i>Nodosohoplites sinuocostatus</i>	0.395		Acanthohoplitidae	Caucasus	Subtropical or Tropical	Cretaceous	Late Aptian	Drushchits & Doguzhaeva (1981)
<i>Nolaniceras</i> sp.	0.42		Acanthohoplitidae	Caucasus, Mangyshlak	Subtropical or Tropical	Cretaceous	Late Aptian	Drushchits & Doguzhaeva (1981)
<i>Nordophyceras schmidtii</i>	0.38	0.78	Meekoceratidae	Far East		Triassic	Late Olenekian	Zakharov (1978)
<i>Obrutchevites prodigialis</i>	0.51	0.82	Trachiceratidae	N Siberia/NE Asia	Temperate	Triassic	Late Carnian, <i>yakutensis</i> Z.	Vavilov (1992)
<i>Olenekites</i> sp.	0.335	0.72	Sibiritidae	N Siberia/NE Asia	Temperate	Triassic	Late Olenekian	Zakharov (1970)
<i>Olenekites spiniplicatus</i>	0.37	0.67	Sibiritidae	N Siberia	Temperate	Triassic	Late Olenekian	Zakharov (1978)
<i>Ophyceras</i> sp.	0.39	0.74	Ophiceratidae	Jakutia		Triassic	Induan	Zakharov (1974)
<i>Osperleioceras lapparenti</i>	0.39		Hildoceratidae	France	Subtropical or Tropical	Jurassic	Reynesi S/z (L. Toarcian)	Morard & Guex (2003)
<i>Osperleioceras reinesi</i>	0.41		Hildoceratidae	France	Subtropical or Tropical	Jurassic	Reynesi S/z (L. Toarcian)	Morard & Guex (2003)
<i>Otoceras boreale</i>	0.73	1.11	Otoceratidae	NE Russia	Temperate	Triassic	Early Induan, <i>Otoceras boreale</i> Chron	Zakharov (1978)
<i>Otoscaphtes clamathensis</i>	0.42	0.78	Scaphitidae	Hokkaido	Subtropical or Tropical	Cretaceous	Coniacian	Tanabe & Ohtsuka (1985), Shigeta (1993), Tanabe <i>et al.</i> (1979)
<i>Otoscaphtes matsumotoi</i>	0.52		Scaphitidae	Japan	Subtropical or Tropical	Cretaceous	Coniacian	Shigeta (1993)
<i>Otoscaphtes puerculus</i>	0.51	0.85	Scaphitidae	Hokkaido	Subtropical or Tropical	Cretaceous	Middle Turonian	Tanabe <i>et al.</i> (1979), Shigeta (1993)
<i>Owenites koeneni</i>	0.37		Owenitidae	Far East, Timor		Triassic	Early Olenekian	Zakharov (1978)
<i>Owenoceras bellilineatum</i>	0.435	0.87	Gastrioceratidae	USA		Pennsylvanian	Moscovian	Tanabe <i>et al.</i> (1994)
<i>Pachyclymenia intermedia</i>	0.48	0.8	Myroclymeniidae			Devonian	Famenian	Bogoslovsky (1981)
Pachydiscid, young, gen. et sp. indet.	0.463	0.798	Pachydiscidae	Hokkaido	Subtropical or Tropical	Cretaceous	Early Campanian	Tanabe <i>et al.</i> (1979)
<i>Palaeokazachstanites ussuriensis</i>	0.45	0.76	Sibiritidae	Far East		Triassic	Early Olenekian	Zakharov (1978)
<i>Paracladiscites</i> sp.	0.5	0.87	Cladiscitidae	N Siberia/NE Asia	Temperate	Triassic	Late Ladinian, <i>macconnelli</i> Z.	Vavilov (1992)
<i>Parafrechites meeki</i>	0.42	0.73	Beyrichitidae	N Siberia/NE Asia	Temperate	Triassic	Late Anisian, <i>nevadanus</i> Z.	Vavilov (1992)
<i>Paragastrioceras</i> sp.	0.48	0.84	Paragastrioceratidae	Russia		Permian	Artinskian	Bogoslovskaya (1951)
<i>Paragastrioceras</i> sp. 2		0.9	Paragastrioceratidae			Permian	Artinskian	Ruzhencev & Shimansky (1954)
<i>Parahedenstroemia nevolini</i>	0.44		Aspenitidae	Far East		Triassic	Early Olenekian, <i>Anasibirites nevolini</i> Chron	Zakharov (1978)
<i>Parahoplites melchioris</i>	0.53		Parahoplitidae	Caucasus	Subtropical or Tropical	Cretaceous	Middle Aptian, <i>Parahoplites melchioris</i> Chron	Mikhailova 1962
<i>Parahoplites melchioris</i> 1	0.88		Parahoplitidae	N Caucasus	Subtropical or Tropical	Cretaceous	Middle Aptian	Mikhailova (1976)
<i>Parahoplites melchioris</i> 2	0.625		Parahoplitidae	Caucasus	Subtropical or Tropical	Cretaceous	Middle Aptian, <i>Parahoplites melchioris</i> Chron	Drushchits & Doguzhaeva (1981)
<i>Parahoplites schmidtii</i>	0.79		Parahoplitidae	N Caucasus	Subtropical or Tropical	Cretaceous	Middle Aptian	Mikhailova (1976)

Species	Protoconch, mm	Ammonitella, mm	Family or Superfamily	Location	Climate (if known)	Period	Age (stage)	Source
<i>Parajaubertella</i> sp.	0.63		Tetragonitidae	Sakhalin	Subtropical or Tropical	Cretaceous	Cenomanian	Drushchits & Doguzhaeva (1981)
<i>Parajaubetelle kawakitana</i>	0.63		Tetragonitidae	Japan	Subtropical or Tropical	Cretaceous	Early Cenomanian	Shigeta (1993)
<i>Paranannites spathi</i>	0.35	0.67	Paranannitidae	Spitzbergen	Temperate	Triassic	Olenekian	Landman <i>et al.</i> (1996)
<i>Parannites aspenensis</i>	0.37	0.65	Nannitidae	Nevada		Triassic	Early Olenekian	Zakharov (1974)
<i>Paranorites? kolymensis</i>	0.44	0.82	Paranoritidae	NE Russia	Temperate	Triassic	Early Olenekian	Zakharov (1978)
<i>Parapatoceras calloviense</i>	0.47	0.84	Spiroceratidae	USA (Dacota)	Subtropical or Tropical	Jurassic	Early–Middle Callovian	Landman <i>et al.</i> (1996)
<i>Parapatoceras distans</i>	0.65		Spiroceratidae	England	Subtropical or Tropical	Jurassic	Early Callovian, ? <i>koenigi</i> Z.	Dietl (1978)
<i>Parapopanoceras asseretoi</i>	0.365	0.68	Parapopanoceratidae	N Siberia	Temperate	Triassic	Late Anisian	Arkadiev & Vavilov (1984b)
<i>Parapopanoceras janaense</i>	0.5		Parapopanoceratidae	N Siberia	Temperate	Triassic	Middle Anisian	Arkadiev & Vavilov (1984b)
<i>Parapopanoceras medium</i>	0.375		Parapopanoceratidae	N Siberia	Temperate	Triassic	Early Anisian	Arkadiev & Vavilov (1984b)
<i>Parapopanoceras paniculatum</i>	0.39	0.66	Parapopanoceratidae	NE Russia	Temperate	Triassic	Anisian	Zakharov (1974)
<i>Parapopanoceras paniculatum</i>	0.39	0.64	Parapopanoceratidae	N Siberia	Temperate	Triassic	Middle Anisian	Arkadiev & Vavilov (1984b)
<i>Paraschistoceras</i> sp.		1.2	Schistoceratidae				Pennsylvanian	Ruzhencev & Shimansky (1954)
<i>Parasibirites grambergi</i>	0.4	0.71	Sibiritidae	N Siberia	Temperate	Triassic	Late Olenekian	Zakharov (1978)
<i>Paravirgatites</i> aff. <i>boldini</i>	0.6		Dorsoplanitidae	Subpolar Ural	Temperate	Jurassic	Early Volgian, “ <i>Pectinatus</i> ” Chron	Mikhailov (1964)
<i>Partschiceras</i> sp.	0.44		Phylloceratidae	Caucasus	Subtropical or Tropical	Jurassic	Middle Bajocian	Drushchits & Doguzhaeva (1981)
<i>Partschiceras striatocostatum</i>	0.75		Phylloceratidae	Austria	Subtropical or Tropical	Jurassic	Sinemurian	Rakus (1999)
<i>Parussuria semenovi</i>	0.43		Ussuritidae			Triassic	Early Olenekian	Zakharov (1978)
<i>Pavlovia iatrensis</i>	0.51		Dorsoplanitidae	Subpolar Ural	Temperate	Jurassic	Middle Volgian, <i>Iatriensis</i> Chron	Kvantaliani <i>et al.</i> (1999)
<i>Pavlovceras</i>	0.6		Cardioceraidae	N Siberia	Temperate	Jurassic	Early Oxfordian, <i>Obliteratum</i> Chron	Knyazev (1975)
<i>Peritrochia erebus</i>	0.45	0.88	Popanoceratidae	USA		Permian	Middle	Tanabe <i>et al.</i> (1994)
<i>Peritrochia typicus</i>	0.41	0.88	Popanoceratidae			Permian	Sakmarian	Landman <i>et al.</i> (1996)
<i>Peronoceras fibulatum</i>	0.45	0.89	Eoderoceratoidea		Subtropical or Tropical	Jurassic	Middle Toarcian	Landman <i>et al.</i> (1996)
<i>Perrinites</i> sp.	0.96	2.15	Perrinitidae	USA		Permian	Middle	Tanabe <i>et al.</i> (1994)
<i>Pharciceras tridens</i>	0.7		Pharciceratidae	Morocco		Devonian	Givetian	Bockwinkel <i>et al.</i> (2009)
<i>Philocladisites basaginensis</i>	0.37	0.66	Cladiscidae	Far East		Triassic	Anisian	Zakharov (1974)
<i>Phylloceras omkuchanicum</i>	0.76		Phylloceratidae	NE Russia	Temperate	Jurassic	Early Sinemurian, <i>Libratus (Bucklandi)</i> Chron	Repin <i>et al.</i> (1998)
<i>Phyllopachyceras ezoense</i>	0.51	0.85	Phyllopachyceratidae	Hokkaido	Subtropical or Tropical	Cretaceous	Late Santonian	Tanabe & Ohtsuka (1985)
<i>Phyllopachyceras ezoense</i>	0.58		Phyllopachyceratidae	Sakhalin	Subtropical or Tropical	Cretaceous	Campanian	Zacharov (1974)
<i>Phyllopachyceras japonicum</i>	0.54		Phyllopachyceratidae	Japan	Subtropical or Tropical	Cretaceous	Early Cenomanian	Shigeta (1993)
<i>Phyllopachyceras</i> sp.	0.455		Phyllopachyceratidae	Caucasus	Subtropical or Tropical	Cretaceous	Middle Aptian	Drushchits & Doguzhaeva (1981)
<i>Placenticeras</i>	0.75		Hoplitaceae	Mangyshlak	Subtropical or Tropical	Cretaceous	Cenomanian	Mikhailova (1974b)
<i>Placites polydactylus</i>	0.39		Pinacoceratidae	Timor		Triassic	Carnian	Zakharov (1978)
<i>Plasmotoceras bodylevskii</i>	0.6		Cardioceraidae	N Siberia	Temperate	Jurassic	Middle Oxfordian	Knyazev (1975)
<i>Platyclymenia richteri</i>	0.52	0.96				Devonian	Famenian, <i>Platyclymenia annulata</i> Z.	Bogoslovsky (1981)
<i>Platyphylloceras lebedevi</i>	0.72		Phylloceratidae	NE Siberia	Temperate	Jurassic	Late Aalenian	Repin (2005)
<i>Pleuroceras</i> sp.	0.5	1.06	Eoderoceratoidea			Jurassic	Late Pliensbachian	Tanabe & Ohtsuka (1985)
<i>Pleurohoplites studeri</i>	0.55		Hoplitaceae	Turkmenia	Subtropical or Tropical	Cretaceous	Late Albian	Mikhailova (1975)
<i>Politoceras politum</i>	0.45	0.9	Dimorphoceratidae	USA		Pennsylvanian	Moscovian	Miller & Unklesbay (1943)
<i>Polyptychites beani</i>	0.52		Polyptychitidae	N Siberia	Temperate	Cretaceous	Valanginian – early	Klimova (1987)
<i>Polyptychites mikhalskii</i>	0.5		Polyptychitidae	N Siberia	Temperate	Cretaceous	Valanginian – early	Klimova (1987)
<i>Polyptychites pumilio</i>	0.425		Polyptychitidae	Germany	Temperate	Cretaceous	Valanginian – early	Vogel (1959)
<i>Polyptychites</i> sp.	0.5		Polyptychitidae	N Siberia	Temperate	Cretaceous	Valanginian – early	Klimova (1987)
<i>Popanoceras annae</i>	0.308	0.66	Popanoceratidae	Russia		Permian	Middle	Miller & Unklesbay (1943), Tanabe <i>et al.</i> (1994)
<i>Proarcestes korchinskajae</i>	0.5	0.875	Proarcestidae	Nsiberia	Temperate	Triassic	Late Carnian	Arkadiev <i>et al.</i> (1993)
<i>Proarcestes verchojanicus</i>	0.62	0.95	Proarcestidae	NE Russia	Temperate	Triassic	Late Carnian	Arkadiev <i>et al.</i> (1993)
<i>Probeloceras lutheri</i>		1.06	Gephuroceratidae	Germany		Devonian	Frasnian	Clausen (1969)
<i>Promicroceras</i> sp.	0.42	0.73	Eoderoceratoidea			Jurassic	Early Sinemurian	Landman <i>et al.</i> (1996)
<i>Pronorites praepermicus</i>	0.6	1.22	Pronoritidae	Russia		Permian	Artinskian	Miller & Unklesbay (1943), Tanabe <i>et al.</i> (1994)
<i>Pronorites vulgaris</i>	0.49	1.05	Pronoritidae			Permian	Artinskian	Bogoslovskaya (1959)

Species	Protoconch, mm	Ammonitella, mm	Family or Superfamily	Location	Climate (if known)	Period	Age (stage)	Source
<i>Properisphinctes pseudobernensis</i>	0.48		Perisphinctidae	Central Russia	Subtropical or Tropical	Jurassic	Late Callovian	Kvantaliani <i>et al.</i> (1999)
<i>Properrinites bakeri</i>	0.68	1.19	Perrinitidae	USA		Permian	Early	Miller & Unklesbay (1943), Tanabe <i>et al.</i> (1994)
<i>Prospiringites czekanowskii</i>	0.44	0.79	Nannitidae	Far East		Triassic	Late Olenekian	Zakharov (1978)
<i>Prospiringites hexagonalis</i>	0.41	0.71	Nannitidae	Far East		Triassic	Early Olenekian	Zakharov (1978)
<i>Prospiringites ovalis</i>	0.41	0.68	Nannitidae	Far East		Triassic	Early Olenekian	Zakharov (1978)
<i>Protexanites minimus</i>	0.45		Collignoniceratidae	Japan	Subtropical or Tropical	Cretaceous	Early Santonian	Shigeta (1993)
<i>Pseudocadoceras</i> sp.	0.5		Cardioceraidae	Central Russia	Subtropical or Tropical	Jurassic	Middle Callovian, <i>Jason</i> Z.?	Drushchits <i>et al.</i> (1976)
<i>Pseudogastrioceras suessi</i>	0.46		Paragastrioceratidae	USA		Permian	Artinskian	Miller & Unklesbay (1943)
<i>Pseudogastrioceras fedorowi</i>	0.39	0.75	Gastrioceratidae			Permian	Artinskian	Bogoslovskaya (1959)
<i>Pseudogastrioceras simulator</i>	0.4	0.8	Paragastrioceratidae	USA		Permian	Early	Tanabe <i>et al.</i> (1994)
<i>Pseudohaploceras nipponicus</i>	0.41		Desmoceratidae	Japan	Subtropical or Tropical	Cretaceous	Late Aptian	Shigeta (1993)
<i>Pseudophyllites indra</i>	0.71		Tetragonitidae	Japan	Subtropical or Tropical	Cretaceous	Late Campanian	Shigeta (1993)
<i>Pseudosageceras borealis</i>	0.57	0.96	Sageceratidae	N Siberia	Temperate	Triassic	Late Olenekian	Zakharov (1978)
<i>Pseudosilesites akushensis</i>	0.43		Desmoceratidae	N. Caucasus	Subtropical or Tropical	Cretaceous	Late Aptian	Mikhailova (1972)
<i>Pseudosilesites seranonifirmis</i>	0.45		Desmoceratidae	N. Caucasus	Subtropical or Tropical	Cretaceous	Late Aptian	Mikhailova (1972)
<i>Psiloceras spella</i>	0.62		Psiloceratidae	Austria	Subtropical or Tropical	Jurassic	basal Hettangian	Hillebrandt & Krystin (2009)
<i>Pterosirenites nelgechensis</i>	0.55	0.72	Trachiceratidae	N Siberia/NE Asia	Temperate	Triassic	Early Norian, <i>obrucevi</i> Z.	Vavilov (1992)
<i>Ptychoceras remgarteni</i>	0.395		Ptychoceratidae	Caucasus	Subtropical or Tropical	Cretaceous	Late Aptian	Drushchits & Doguzhaeva (1981)
<i>Ptychophylloceras ptychoticus</i>	0.41		Phylloceratidae	Crimea	Subtropical or Tropical	Cretaceous	Berriasian	Drushchits & Doguzhaeva (1981)
<i>Puzosia orientalis</i>	0.48		Desmoceratidae	Japan	Subtropical or Tropical	Cretaceous	Early Turonian	Shigeta (1993)
<i>Reesidites minimus</i>	0.458	1.004	Collignoniceratidae	Hokkaido	Subtropical or Tropical	Cretaceous	Late Turonian	Tanabe <i>et al.</i> (1979)
<i>Rhacophyllites</i>	0.29		Discophyllitidae		Subtropical or Tropical	Triassic	Carnian–Norian	Spath (1950)
<i>Richardonites richardsonianus</i>	0.46	0.8	Glaphyritidae	USA		Mississippian	Serpukhovian	Tanabe <i>et al.</i> (1994)
<i>Saghalinites teshioensis</i>	0.68		Tetragonitidae	Japan	Subtropical or Tropical	Cretaceous	Late Campanian	Shigeta (1993)
<i>Sakmarites vulgaris</i>	0.49	1.05	Gephuroceratidae	Russia		Permian	Artinskian	Bogoslovskaya (1951)
<i>Salfeldiella</i> spp.	0.47		Phylloceratidae	Caucasus	Subtropical or Tropical	Cretaceous	Middle–Late Aptian	Drushchits & Doguzhaeva (1981)
<i>Sanmartinoceras</i> sp.	0.435		Aconeceratidae	Caucasus	Subtropical or Tropical	Cretaceous	Late Aptian	Drushchits & Doguzhaeva (1981)
<i>Scaphites carlilensis</i>		0.6	Scaphitidae	USA	Subtropical or Tropical	Cretaceous	Turonian	Landman (1987)
<i>Scaphites corvensis</i>	0.31	0.67	Scaphitidae	USA	Subtropical or Tropical	Cretaceous	Turonian	Landman (1987)
<i>Scaphites depressus</i>	0.36	0.75	Scaphitidae	USA	Subtropical or Tropical	Cretaceous	Coniacian	Landman (1987)
<i>Scaphites larvaeformis</i>	0.32	0.59	Scaphitidae	USA	Subtropical or Tropical	Cretaceous	Turonian	Landman (1987)
<i>Scaphites nigricollensis</i>	0.37	0.68	Scaphitidae	USA	Subtropical or Tropical	Cretaceous	Turonian	Landman (1987)
<i>Scaphites planus</i>	0.51	0.89	Scaphitidae	Hokkaido	Subtropical or Tropical	Cretaceous	Middle Turonian	Shigeta (1993), Tanabe & Ohtsuka (1985)
<i>Scaphites planus</i>	0.487	0.85	Scaphitidae	Hokkaido	Subtropical or Tropical	Cretaceous	Late Turonian	Tanabe <i>et al.</i> (1979)
<i>Scaphites pseudoequalis</i>	0.445	0.79	Scaphitidae	Hokkaido	Subtropical or Tropical	Cretaceous	Coniacian	Shigeta (1993), Tanabe & Ohtsuka (1985)
<i>Scaphites pseudoequalis</i>	0.405	0.72	Scaphitidae	Hokkaido	Subtropical or Tropical	Cretaceous	Early Coniacian	Tanabe <i>et al.</i> (1979)
<i>Scaphites warreni</i>	0.32	0.66	Scaphitidae	USA	Subtropical or Tropical	Cretaceous	Turonian	Landman (1987)
<i>Scaphites yonekurai</i>	0.51		Scaphitidae	Japan	Subtropical or Tropical	Cretaceous	Coniacian	Shigeta (1993)
<i>Scarburgiceras alphacordatum</i>	0.6		Cardioceraidae	N Siberia	Temperate	Jurassic	Early Oxfordian, <i>Gloriosum</i> Chron	Knyazev (1975)
<i>Scarburgiceras oblitteratum</i>	0.6		Cardioceraidae	N Siberia	Temperate	Jurassic	Early Oxfordian, <i>Oblitteratum</i> Chron	Knyazev (1975)
<i>Scarburgiceras praecordatum</i>	0.6		Cardioceraidae	N Siberia	Temperate	Jurassic	Early Oxfordian, <i>Gloriosum</i> Chron	Knyazev (1975)
<i>Schloenbachia</i>	0.525		Hoplitaceae	Mangyshlak	Subtropical or Tropical	Cretaceous	Early Cenomanian	Mikhailova (1974b)
<i>Scoticardioceras excavatum</i>	0.6		Cardioceraidae	N Siberia	Temperate	Jurassic	Early Oxfordian, <i>Cordatum</i> Chron – M. Oxfordian	Knyazev (1975)
<i>Sellanarcestes neglectus</i>	1.1		Anarcestidae			Devonian	Emsian upper	De Baets <i>et al.</i> (2012)
<i>Siberites</i> sp.	0.6		Craspeditidae	NE Siberia	Temperate	Cretaceous	Early Valanginian	Klimova (1983)
<i>Sibirites eichwaldi</i>	0.36	0.635	Sibiritidae	N Siberia	Temperate	Triassic	Late Olenekian	Zakharov (1978)
<i>Simbirskites</i> spp.	0.61		Simbirskitidae	Volga	Subtropical or Tropical	Cretaceous	Late Hauterivian, <i>Discofalcatum</i> Chron	Drushchits & Doguzhaeva (1981)
<i>Sokolovites subdragunovi</i>	0.45		Hoplitidae	Mangyshlak	Subtropical or Tropical	Cretaceous	Early Albian	Mikhailova (1975)
<i>Sonneratia luppovi</i>	0.53		Hoplitidae	Mangyshlak	Subtropical or Tropical	Cretaceous	Early Albian	Mikhailova (1974a)
<i>Speetonoceras versicolor</i>	0.58		Simbirskitidae	Volga	Subtropical or Tropical	Cretaceous	Late Hauterivian, <i>Versicolor</i> Chron	Drushchits & Doguzhaeva (1981)

Species	Protoconch, mm	Ammonitella, mm	Family or Superfamily	Location	Climate (if known)	Period	Age (stage)	Source
<i>Sphaerocladiscites omolonensis</i>	0.55	0.8	Cladiscitidae	N Siberia/NE Asia	Temperate	Triassic	Late Ladinian, <i>macconnelli</i> Z.	Vavilov (1992)
<i>Sphaeromanticoceras rhynchostomum</i>	0.8	1.1	Gephuroceratidae	USA		Devonian	Frasnian	House & Kirchgasser (2008)
<i>Spheroceceras brongniarti</i>	0.34		Stephanoceratacea	Europe	Subtropical or Tropical	Jurassic	Bajocian	Grandjean (1910)
<i>Stacheoceras subinterruptum</i>	0.425	0.84	Popanoceratidae			Permian	Artinskian	Bogoslovskaya (1959)
<i>Stacheoceras toumanskyae</i>	0.266		Popanoceratidae	Mexico		Permian	Capitanian	Miller & Unklesbay (1943)
<i>Stenoglyphyrites incisus</i>	0.53	0.95	Stenoglyphyritidae	USA		Mississippian	Serpukhovian	Tanabe <i>et al.</i> (1994)
<i>Stenopopanoceras mirabile</i>	0.44		Parapopanoceratidae	N Siberia	Temperate	Triassic	Early Anisian	Arkadiev & Vavilov (1984b)
<i>Stephanoceras itinsae</i>	0.43	0.8	Stephanoceratidae	British Columbia	Subtropical or Tropical	Jurassic	Early Bajocian, <i>Humpressianum</i> Chron	Hall & Westermann (1980)
<i>Stolleyites tenuis</i>	0.36	0.62	Nathorstitidae	Spitzbergen	Temperate	Triassic	Early Carnian	Landman <i>et al.</i> (1996)
<i>Strajevskya strajevskyi</i>	0.6		Dorsoplanitidae	Subpolar Ural	Temperate	Jurassic	Middle Volgian, <i>Iatriensis</i> Chron	Mikhailov (1966)
<i>Subcolumbites multiformis</i>	0.375	0.63	Columbitidae	Far East		Triassic	Late Olenekian	Zakharov (1978)
<i>Sublunoceras virguloides</i>	0.36		Hectoceratidae	France	Subtropical or Tropical	Jurassic	Late Callovian, <i>athleta</i> Z.	Rouget & Neige (2001)
<i>Subprionocyclus neptuni</i>	0.432	0.75	Collignoniceratidae	Hokkaido	Subtropical or Tropical	Cretaceous	Late Turonian	Tanabe <i>et al.</i> (1979)
<i>Subpryonocyclus minimus</i>	0.44		Collignoniceratidae	Japan	Subtropical or Tropical	Cretaceous	Late Turonian	Shigeta (1993)
<i>Subpryonocyclus neptuni</i>	0.45		Collignoniceratidae	Japan	Subtropical or Tropical	Cretaceous	Early Turonian	Shigeta (1993)
<i>Sulcohoplites altifurcatus</i>	0.5		Hoplitidae	Mangyshlak		Cretaceous	Late Albian	Mikhailova & Saveliev (1994)
<i>Surites subanalogus</i>	0.41		Craspeditidae	N Siberia	Temperate	Cretaceous	Middle Berriasian, <i>Analogus</i> Chron	Shulgina (1985)
<i>Svalbardiceras sibiricum</i>	0.39	0.9	Meekoceratidae	Far East		Triassic	Late Olenekian	Zakharov (1978)
<i>Svalbardiceras spitzbergensis</i>	0.37	0.7	Olenekitidae	Spitzbergen	Temperate	Triassic	Olenekian	Zakharov (1971)
<i>Taramelliceras richei</i>	0.275	0.54	Oppeliidae	England	Subtropical or Tropical	Jurassic	Early Oxfordian, <i>Mariae</i> Chron	Palframan (1966)
<i>Tauricoceras crassicoatum</i>	0.5		Neocomitidae	Crimea	Subtropical or Tropical	Cretaceous	Late Berriasian	Khvantaliani (1999)
<i>Tauricoceras lyssenkoi</i>	0.51		Neocomitidae	Crimea	Subtropical or Tropical	Cretaceous	Late Berriasian	Khvantaliani (1999)
<i>Teshioites</i> sp.	0.55		Pachydiscidae	Japan	Subtropical or Tropical	Cretaceous	Early Campanian	Shigeta (1993)
<i>Tetragonites</i> aff. <i>kitchini</i>	0.62		Tetragonitidae	Japan	Subtropical or Tropical	Cretaceous	Middle Cenomanian	Shigeta (1993)
<i>Tetragonites depressus</i>	0.6		Tetragonitidae	Caucasus	Subtropical or Tropical	Cretaceous	Late Aptian	Drushchits & Mikhailova (1973)
<i>Tetragonites glabrus</i>	0.6	1.08	Tetragonitidae	Hokkaido	Subtropical or Tropical	Cretaceous	Early Turonian	Shigeta (1993), Tanabe & Ohtsuka (1985)
<i>Tetragonites glabrus</i>	0.786	1.55	Tetragonitidae	Hokkaido	Subtropical or Tropical	Cretaceous	Middle Turonian–Early Santonian	Tanabe <i>et al.</i> (1979)
<i>Tetragonites minimus</i>	0.54		Tetragonitidae	Japan	Subtropical or Tropical	Cretaceous	Early Turonian	Shigeta (1993)
<i>Tetragonites popetensis</i>	0.62	1.27	Tetragonitidae	Hokkaido	Subtropical or Tropical	Cretaceous	Early Campanian	Tanabe & Ohtsuka (1985)
<i>Tetrahoplites dragunovi</i>	0.79		Hoplitaceae	Mangyshlak		Cretaceous	Early Albian	Mikhailova (1974)
<i>Texanites kawasaki</i>	0.57		Collignoniceratidae	Japan	Subtropical or Tropical	Cretaceous	Early Santonian	Shigeta (1993)
<i>Texoceras</i> sp.		0.97	Adrianitidae	USA		Permian	Middle	Tanabe <i>et al.</i> (1994)
<i>Thalassoceras gemmellaroi</i>	0.32	0.62	Thalassoceratidae	USA		Permian	Artinskian	Bogoslovskaya (1951)
<i>Tiloniceras antiquum</i>	0.92		Hildoceratidae	Siberia	Temperate	Jurassic	Early Toarcian	Kutygin (2009)
<i>Tornoceras arkonense</i>	0.8	1.5	Tornoceratidae	Canada		Devonian	Givetian	House (1965)
<i>Tornoceras arquatum</i>	0.71		Tornoceratidae	USA		Devonian	Frasnian	House (1965)
<i>Tornoceras concentricum</i>	0.55	1.4	Tornoceratidae	USA		Devonian	Famennian	House (1965)
<i>Tornoceras uniangulare aldenense</i>	0.945	1.49	Tornoceratidae	USA		Devonian	Givetian	House (1965)
<i>Tornoceras uniangulare obesum</i>	0.98		Tornoceratidae	USA		Devonian	Middle Frasnian	House (1965)
<i>Tornoceras uniangulare uniangulare</i>	0.8		Tornoceratidae	Canada		Devonian	Uppermost Givetian	House (1965)
<i>Tornoceras uniangulare widderi</i>		1.5	Tornoceratidae	Canada		Devonian	Givetian	House (1965)
<i>Trachyceras aonoides</i>	0.3		Trachiceratidae	Alps	Subtropical or Tropical	Triassic	Middle Carnian	Spath (1950)
<i>Tragodesmoceras subcostatum</i>	0.46		Desmoceratidae	Japan	Subtropical or Tropical	Cretaceous	Early Turonian	Shigeta (1993)
<i>Tragodesmoceroideis subcostatus</i>	0.7		Desmoceratidae	Sakhalin	Subtropical or Tropical	Cretaceous	Early Turonian	Nishimura <i>et al.</i> (2006)
<i>Tragodesmoceroideis subcostatus</i>	0.472	0.924	Desmoceratidae	Hokkaido	Subtropical or Tropical	Cretaceous	Middle Turonian	Tanabe <i>et al.</i> (1979)
<i>Tragophylloceras loscombi</i>	0.425		Juraphyllitidae	England	Subtropical or Tropical	Jurassic	Late Pliensbachian	Spath (1914)
<i>Tropidoceras</i> cf. <i>zitteli</i>	0.2		Acanthopleuroceratidae	Argentina	Subtropical or Tropical	Jurassic	Early Pliensbachian	Hillebrandt (2006)
<i>Truyolsoceras bicostatum</i>	0.5	1.45	Tornoceratidae	USA		Devonian	Famennian	House (1965)
<i>Tsvetkovites dolioliformis</i>	0.36	0.65	Nathorstitidae	N Siberia/NE Asia	Temperate	Triassic	Late Ladinian, <i>omolajensis</i> Z.	Vavilov (1992)
<i>Uraloceras fedorowi</i>	0.39	0.75	Paragastrioceratidae	USA		Permian	Artinskian	Bogoslovskaya (1951)

Species	Protoconch, mm	Ammonitella, mm	Family or Superfamily	Location	Climate (if known)	Period	Age (stage)	Source
<i>Uraloceras subsimense</i>	0.75		Paragastrioceratidae	Russia		Permian	Sakmarian	Kutygin (2004)
<i>Uraloclymenia kazakhstanica</i>	0.54	0.925	Myroclymeniidae			Devonian	Famenian	Bogoslovsky (1981)
<i>Ussurites</i> sp.	0.75	1.35	Ussuritidae	N Siberia/NE Asia	Temperate	Triassic	Late Anisian, <i>nevadanus</i> Z.	Vavilov (1992)
<i>Valdedorsella akuschaensis</i>	0.33		Desmoceratidae	Japan	Subtropical or Tropical	Cretaceous	Late Aptian	Shigeta (1993)
<i>Vertebriceras vertebrale</i>	0.6		Cardioceratidae	N Siberia	Temperate	Jurassic	Early Oxfordian, <i>Cordatum</i> Chron	Knyazev (1975)
<i>Vidrioceras</i> sp.	0.44	0.8	Vidrioceratidae			Pennsylvanian		Tanabe <i>et al.</i> (1994)
<i>Vidrioceras</i> sp. 2		0.75	Vidrioceratidae	USA		Pennsylvanian		Tanabe <i>et al.</i> (2001)
<i>Virgatites virgatus</i>	0.575		Virgatitidae	Central Russia	Subtropical or Tropical	Jurassic	Middle Volgian, <i>Virgatus</i> Chron	Druschiz <i>et al.</i> (1983)
<i>Volgaites elatmaensis</i>	0.435		Perisphinctidae	Central Russia	Subtropical or Tropical	Jurassic	Middle Callovian, <i>jason</i> Z.?	Kvantaliani <i>et al.</i> (1999)
<i>Waagenina</i> sp.	0.365		Vidrioceratidae			Permian		Ruzhencev & Shimansky (1954)
<i>Waagenina subinterrupta</i>	0.425	0.84	Vidrioceratidae	Russia		Permian	Artinskian	Bogoslovskaya (1951)
<i>Waagenoceras dieneri girtyi</i>	0.448		Cyclolobidae	Mexico		Permian	Wordian	Miller & Unklesbay (1943)
<i>Waagenoceras guadalupense</i>	0.49		Cyclolobidae	USA		Permian	Wordian	Miller & Unklesbay (1943)
<i>Wangoceras berissense</i>	0.435	0.71	Trachiceratidae	N Siberia/NE Asia	Temperate	Triassic	Early Norian, <i>obrucevi</i> Z.	Vavilov (1992)
<i>Xenodiscus subleptodiscus</i>	0.38	0.73	Xenodiscidae	NE Russia	Temperate	Triassic	Early Olenekian	Zakharov (1978)
<i>Yinoceras lenticulare</i>	0.49		Pseudohaloritidae			Permian	Middle	Zhou <i>et al.</i> (2002)
<i>Yokoyamaoceras ishikawai</i>	0.5	0.88	Desmoceratidae	Japan	Subtropical or Tropical	Cretaceous	Turonian	Tanabe <i>et al.</i> (1979)
<i>Yokoyamaoceras jimboi</i>	0.52	0.972	Kossmaticeratidae	Hokkaido	Subtropical or Tropical	Cretaceous	Early Santonian	Tanabe <i>et al.</i> (1979), Shigeta (1993)
<i>Yukagirites kinasovi</i>	0.6		Yukagiritidae	NE Russia	Temperate	Jurassic	Late Sinemurian, <i>Kolymicum</i> Chron	Repin <i>et al.</i> (1998)
<i>Zelandites inflatus</i>	0.495	0.82	Tetragonitidae	Hokkaido	Subtropical or Tropical	Cretaceous	Early Cenomanian	Tanabe & Ohtsuka (1985)
<i>Zelandites japonicus</i>	0.675	1.21	Tetragonitidae	Sakhalin	Subtropical or Tropical	Cretaceous	Early Maastrichtian	Zakharov & Grabovskaya (1984)
<i>Zelandites kawanoi</i>	0.48		Tetragonitidae	Japan	Subtropical or Tropical	Cretaceous	Early Santonian	Shigeta (1993), Tanabe & Ohtsuka (1985)
<i>Zelandites mihoensis</i>	0.59		Tetragonitidae	Japan	Subtropical or Tropical	Cretaceous	Coniacian	Shigeta (1993)
<i>Zelandites varuna</i>	0.66		Tetragonitidae	Japan	Subtropical or Tropical	Cretaceous	Early Maastrichtian	Shigeta (1993)
<i>Zemistephanus crickmayi</i>		0.85	Stephanoceratidae	Alaska, British Columbia	Subtropical or Tropical	Jurassic	Early Bajocian, <i>Humpressianum</i> Chron	Hall & Westermann (1980)
<i>Zemistephanus richardsoni</i>	0.35	0.8	Stephanoceratidae	Alaska	Subtropical or Tropical	Jurassic	Early Bajocian, <i>Humpressianum</i> Chron	Hall & Westermann (1980)
<i>Zugodactylites braunianus</i>	0.8		Dactylioceratidae	N Siberia/NE Russia	Temperate	Jurassic	Middle Toarcian	Knyazev <i>et al.</i> (1993)
<i>Zulcherella falcistriata</i>	0.41		Desmoceratidae	Caucasus	Subtropical or Tropical	Cretaceous	Middle Aptian	Drushchits & Doguzhaeva (1981)
<i>Boreophylloceras densicostatum</i>	1.34		Boreiophylloceratidae	NE Siberia	Temperate	Cretaceous	Early–Middle Berriasian, <i>Hectoroceras kochi</i> Chron	Igolnikov (2007)
<i>Metalegoceras</i> sp.	0.36		Metalegoceratidae	Russia		Permian		Ruzhencev & Shimansky (1954)
<i>Parapronorites biformis</i>	0.77		Medlicottiidae	Russia		Permian	Artinskian	Schoulga-Nesterenko (1926)