**Supplementary Information**

**Assessing canalisation of intraspecific variation on a macroevolutionary scale: The case of crinoid arms through the Phanerozoic**

Catalina Pimiento1,2 , Kit Lam Tang3, Samuel Zamora4, Christian Klug3, Marcelo R. Sánchez-Villagra3.

**Table S1.** Summary of all species sampled, their age, taxonomic affiliations and the proxies of variation. Grey font denote species with

less than 5 individuals, which were excluded from the intraspecific variation analyses. sd = standard deviation; cv = coefficient of variation.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Period** | **Epoch** | **Subclass** | **Clade** | **Primibrachial count** | | |  | **N** |
| **range** | **mean** | **sd** | **CV** |  |
| *Metacrinus\_rotundus* | Recent | Recent | Pentacrinoidea | Articulata | 5 | 6.70 | 0.84 | 0.12 | 66 |
| *Pentacrinites\_dargniesi* | Jurassic | Bajocian | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 52 |
| *Traumatocrinus\_hsui* | Triassic | Ladinian | Pentacrinoidea | Articulata | 1 | 2.01 | 0.12 | 0.06 | 39 |
| *Traumatocrinus\_hsui* | Triassic | Late Triassic | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 39 |
| *Pentacrinites\_fossilis* | Jurassic | Sinemurian | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 38 |
| *Iocrinus\_subcrassus* | Ordovician | Katian | Pentacrinoidea | Disparida | 3 | 4.16 | 0.49 | 0.12 | 36 |
| *Temnocrinus\_tuberculatus* | Silurian | Wenlock | Pentacrinoidea | Flexibilia | 2 | 2.14 | 0.39 | 0.18 | 31 |
| *Codiacrinus\_schultzei* | Devonian | Emsian | Pentacrinoidea | Cyathoformes | 3 | 2.97 | 0.45 | 0.15 | 28 |
| *Saracrinus\_nobilis* | Recent | Recent | Pentacrinoidea | Articulata | 3 | 4.02 | 0.32 | 0.08 | 27 |
| *Encrinus\_liliiformis* | Triassic | Anisian | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 22 |
| *Encrinus\_liliiformis* | Triassic | Middle Triassic | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 22 |
| *Chariocrinus\_andreae* | Jurassic | Bajocian | Pentacrinoidea | Articulata | 1 | 2.03 | 0.16 | 0.08 | 21 |
| *Moroccocrinus\_ebbighauseni* | Devonian | Famennian | Pentacrinoidea | Cyathoformes | 1 | 1.96 | 0.19 | 0.10 | 20 |
| *Sagenocrinites\_expansus* | Silurian | Wenlock | Pentacrinoidea | Flexibilia | 1 | 1.98 | 0.16 | 0.08 | 19 |
| *Pachylocrinus\_aequalis* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 1 | 2.09 | 0.30 | 0.14 | 19 |
| *Pachylocrinus\_aequalis* | Carboniferous | Tournaisian | Pentacrinoidea | Cyathoformes | 2 | 1.92 | 0.37 | 0.19 | 19 |
| *Cupulocrinus\_jewetti* | Ordovician | Darriwilian | Pentacrinoidea | Cyathoformes | 3 | 3.47 | 0.70 | 0.20 | 18 |
| *Cupulocrinus\_jewetti* | Ordovician | Ordovician | Pentacrinoidea | Cyathoformes | 2 | 3.72 | 0.61 | 0.16 | 18 |
| *Cupulocrinus\_angustatus* | Ordovician | Richmondian | Pentacrinoidea | Cyathoformes | 4 | 3.88 | 1.08 | 0.28 | 17 |
| *Taxocrinus\_multibrachiatus* | Carboniferous | Serpukhovian | Pentacrinoidea | Flexibilia | 2 | 3.00 | 0.26 | 0.09 | 15 |
| *Pentacrinites\_doreckae* | Jurassic | Sinemurian | Pentacrinoidea | Articulata | 2 | 2.00 | 0.32 | 0.16 | 15 |
| *Taxocrinus\_stuertzi* | Devonian | Emsian | Pentacrinoidea | Flexibilia | 1 | 2.96 | 0.20 | 0.07 | 14 |
| *Scyphocrinites\_sp* | Silurian | Pridoli | Camerata | Monobathrida | 0 | 2.00 | 0.00 | 0.00 | 13 |
| *Abrotocrinus\_unicus* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 1 | 1.06 | 0.25 | 0.23 | 13 |
| *Abrotocrinus\_unicus* | Carboniferous | Serpukhovian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 13 |
| *Scytalocrinus\_robustus* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 1 | 1.07 | 0.26 | 0.24 | 13 |
| *Seirocrinus\_subangularis* | Jurassic | Toarcian | Pentacrinoidea | Articulata | 1 | 2.05 | 0.23 | 0.11 | 13 |
| *Cupulocrinus\_crossmani* | Ordovician | Katian | Pentacrinoidea | Cyathoformes | 1 | 3.88 | 0.33 | 0.09 | 12 |
| *Onychocrinus\_ramulosus* | Carboniferous | Mississippian | Pentacrinoidea | Flexibilia | 0 | 3.00 | 0.00 | 0.00 | 11 |
| *Onychocrinus\_ramulosus* | Carboniferous | Serpukhovian | Pentacrinoidea | Flexibilia | 1 | 3.21 | 0.42 | 0.13 | 11 |
| *Uintacrinus\_socialis* | Cretaceous | Cretaceous | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 11 |
| *Cupulocrinus\_plattevillensis* | Ordovician | Katian | Pentacrinoidea | Cyathoformes | 2 | 4.63 | 0.81 | 0.17 | 10 |
| *Onychocrinus\_exsculptus* | Carboniferous | Serpukhovian | Pentacrinoidea | Flexibilia | 2 | 3.96 | 0.34 | 0.09 | 10 |
| *Chelocrinus\_carnalli* | Triassic | Anisian | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 10 |
| *Chelocrinus\_schlotheimi* | Triassic | Middle Triassic | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 10 |
| *Stuartwellercrinus\_corbatoi* | Permian | Cisuralian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 9 |
| *Metacrinus\_fossilis* | Paleogene | Eocene | Pentacrinoidea | Articulata | 2 | 4.69 | 0.52 | 0.11 | 9 |
| *Gymnocrinus\_richeri* | Recent | Recent | Pentacrinoidea | Articulata | 0 | 1.00 | 0.00 | 0.00 | 9 |
| *Eoparisocrinus\_crossmani* | Ordovician | Middle Ordovician | Pentacrinoidea | Cyathoformes | 1 | 3.21 | 0.43 | 0.13 | 8 |
| *Asaphocrinus\_ornatus* | Silurian | Silurian | Pentacrinoidea | Flexibilia | 0 | 2.00 | 0.00 | 0.00 | 8 |
| *Pentacrinites\_briareus* | Jurassic | Toarcian | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 8 |
| *Antedon\_mediterraneous* | Recent | Recent | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 8 |
| *Comactina\_echinoptera* | Recent | Recent | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 8 |
| *Saracrinus\_angulatus* | Recent | Recent | Pentacrinoidea | Articulata | 2 | 4.08 | 0.36 | 0.09 | 8 |
| *Cupulocrinus\_humilis* | Ordovician | Ordovician | Pentacrinoidea | Cyathoformes | 2 | 4.77 | 0.73 | 0.15 | 7 |
| *Cupulocrinus\_humilis* | Ordovician | Rocklandian | Pentacrinoidea | Cyathoformes | 1 | 4.50 | 0.55 | 0.12 | 7 |
| *Dendrocrinus\_casei* | Ordovician | Ordovician | Pentacrinoidea | Cyathoformes | 4 | 4.62 | 0.96 | 0.21 | 7 |
| *Botryocrinus\_decadactylus* | Silurian | Silurian | Pentacrinoidea | Cyathoformes | 2 | 3.67 | 0.78 | 0.21 | 7 |
| *Eucalyptocrinites\_crassus* | Silurian | Silurian | Camerata | Monobathrida | 1 | 2.03 | 0.17 | 0.08 | 7 |
| *Arthroacanta\_carpenteri* | Devonian | Devonian | Camerata | Monobathrida | 0 | 2.00 | 0.00 | 0.00 | 7 |
| *Abrotocrinus\_coreyi* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 7 |
| *Dichocrinus\_cinctus* | Carboniferous | Mississippian | Camerata | Monobathrida | 0 | 2.00 | 0.00 | 0.00 | 7 |
| *Dichocrinus\_polydactylus* | Carboniferous | Serpukhovian | Camerata | Monobathrida | 0 | 2.00 | 0.00 | 0.00 | 7 |
| *Taxocrinus\_colletti* | Carboniferous | Mississippian | Pentacrinoidea | Flexibilia | 0 | 3.00 | 0.00 | 0.00 | 7 |
| *Taxocrinus\_colletti* | Carboniferous | Serpukhovian | Pentacrinoidea | Flexibilia | 0 | 3.00 | 0.00 | 0.00 | 7 |
| *Taxocrinus\_meeki* | Carboniferous | Serpukhovian | Pentacrinoidea | Flexibilia | 0 | 3.00 | 0.00 | 0.00 | 7 |
| *Platycrinus\_wachsmuthi* | Permian | Guadalupian | Camerata | Monobathrida | 0 | 1.00 | 0.00 | 0.00 | 7 |
| *Comathus\_whlbergi\_tenuibranchiu* | Recent | Recent | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 7 |
| *Diplocrinus\_maclearanus* | Recent | Recent | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 7 |
| *Florometra\_serratissima* | Recent | Recent | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 7 |
| *Isometra\_graminea* | Recent | Recent | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 7 |
| *Psathyometra\_fragilis* | Recent | Recent | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 7 |
| *Ectenocrinus\_grandis* | Ordovician | Ordovician | Pentacrinoidea | Disparida | 0 | 2.00 | 0.00 | 0.00 | 6 |
| *Lecanocrinus\_excavatus* | Silurian | Silurian | Pentacrinoidea | Flexibilia | 0 | 2.00 | 0.00 | 0.00 | 6 |
| *Hollowaycrinus\_calvus* | Devonian | Lochkovian | Camerata | Diplobathrida | 1 | 2.08 | 0.29 | 0.14 | 6 |
| *Abrotocrinus\_cymosus* | Carboniferous | Serpukhovian | Pentacrinoidea | Cyathoformes | 1 | 1.33 | 0.49 | 0.37 | 6 |
| *Barycrinus\_rhombiferus* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 4 | 2.33 | 1.13 | 0.48 | 6 |
| *Clathrocrinus\_clathratus* | Carboniferous | Pennsylvanian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 6 |
| *Cyathocrinites\_multibrachiatus* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 5 | 3.67 | 1.56 | 0.42 | 6 |
| *Dichocrinus\_inornatus* | Carboniferous | Mississippian | Camerata | Monobathrida | 0 | 2.00 | 0.00 | 0.00 | 6 |
| *Eratocrinus\_salemensis* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 3 | 1.33 | 0.84 | 0.63 | 6 |
| *Histocrinus\_coreyi* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 0 | 2.00 | 0.00 | 0.00 | 6 |
| *Sarocrinus\_varsoviensis* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 6 | 2.92 | 1.86 | 0.64 | 6 |
| *Zeacrinus\_wortheni* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 1 | 1.13 | 0.35 | 0.31 | 6 |
| *Erisocrinus\_longwelli* | Permian | Cisuralian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 6 |
| *Erisocrinus\_longwelli* | Permian | Permian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 6 |
| *Kiimetra\_miocenica* | Neogene | Miocene | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 6 |
| *Amphimetra\_ensifer* | Recent | Recent | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 6 |
| *Analcidometra\_armatra* | Recent | Recent | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 6 |
| *Annacrinus\_ wyvillethomsoni* | Recent | Recent | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 6 |
| *Bathycrinus\_australis* | Recent | Recent | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 6 |
| *Endoxocrinus\_parrae* | Recent | Recent | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 6 |
| *Metacrinus\_levii* | Recent | Recent | Pentacrinoidea | Articulata | 2 | 6.74 | 0.59 | 0.09 | 6 |
| *Neocomatela\_alata* | Recent | Recent | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 6 |
| *Tropometra\_carinata\_carinata* | Recent | Recent | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 6 |
| *Anomalocrinus\_incurvus* | Ordovician | Ordovician | Pentacrinoidea | Disparida | 2 | 2.94 | 0.80 | 0.27 | 5 |
| *Lecanocrinus\_macropetalus* | Silurian | Silurian | Pentacrinoidea | Flexibilia | 1 | 2.07 | 0.27 | 0.13 | 5 |
| *Codiacrinus\_secundus* | Devonian | Lochkovian | Pentacrinoidea | Cyathoformes | 1 | 3.71 | 0.49 | 0.13 | 5 |
| *Dolatocrinus\_lineolatus* | Devonian | Devonian | Camerata | Monobathrida | 0 | 2.00 | 0.00 | 0.00 | 5 |
| *Eutaxocrinus\_whiteavesi* | Devonian | Devonian | Pentacrinoidea | Flexibilia | 1 | 2.78 | 0.43 | 0.15 | 5 |
| *Barycrinus\_asteriscus* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 0 | 2.00 | 0.00 | 0.00 | 5 |
| *Barycrinus\_hoveyi* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 0 | 2.00 | 0.00 | 0.00 | 5 |
| *Erisocrinus\_typus* | Carboniferous | Pennsylvanian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 5 |
| *Moscovicrinus\_multiplex* | Carboniferous | Carboniferous | Pentacrinoidea | Cyathoformes | 1 | 2.04 | 0.21 | 0.10 | 5 |
| *Onychocrinus\_ulrichi* | Carboniferous | Carboniferous | Pentacrinoidea | Flexibilia | 0 | 4.00 | 0.00 | 0.00 | 5 |
| *Onychocrinus\_ulrichi* | Carboniferous | Mississippian | Pentacrinoidea | Flexibilia | 2 | 4.00 | 0.41 | 0.10 | 5 |
| *Platycrinites\_bozemanensis* | Carboniferous | Mississippian | Camerata | Monobathrida | 0 | 1.00 | 0.00 | 0.00 | 5 |
| *Platycrinites\_hemisphaericus* | Carboniferous | Mississippian | Camerata | Monobathrida | 0 | 1.00 | 0.00 | 0.00 | 5 |
| *Platycrinites\_hemisphaericus* | Carboniferous | Serpukhovian | Camerata | Monobathrida | 0 | 1.00 | 0.00 | 0.00 | 5 |
| *Arroyocrinus\_popenoei* | Permian | Permian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 5 |
| *Metacrinus\_serratus* | Recent | Recent | Pentacrinoidea | Articulata | 3 | 6.76 | 0.75 | 0.11 | 5 |
| *Neocrinus\_blakei* | Recent | Recent | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 5 |
| *Praecupulocrinus\_conjugans* | Ordovician | Middle Ordovician | Pentacrinoidea | Cyathoformes | 2 | 4.00 | 0.76 | 0.19 | 4 |
| *Pycnocrinus\_altilis* | Ordovician | Late Ordovician | Camerata | Monobathrida | 0 | 2.00 | 0.00 | 0.00 | 4 |
| *Abacocrinus\_sp* | Silurian | Wenlock | Camerata | Monobathrida | 0 | 2.00 | 0.00 | 0.00 | 4 |
| *Cyathocrinus\_ramosus* | Silurian | Wenlock | Pentacrinoidea | Cyathoformes | 1 | 2.14 | 0.38 | 0.18 | 4 |
| *Periechocrinus\_moniliformis* | Silurian | Wenlock | Camerata | Monobathrida | 0 | 2.00 | 0.00 | 0.00 | 4 |
| *Thylacocrinus\_vannioti* | Devonian | Early Devonian | Camerata | Diplobathrida | 1 | 1.83 | 0.41 | 0.22 | 4 |
| *Aerocrinus\_inmaturus* | Carboniferous | Mississippian | Camerata | Monobathrida | 0 | 2.00 | 0.00 | 0.00 | 4 |
| *Clathrocrinus\_clinatus* | Carboniferous | Pennsylvanian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 4 |
| *Scytalocrinus\_grandis* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 1 | 1.67 | 0.52 | 0.31 | 4 |
| *Stellarocrinus\_sp* | Carboniferous | Pennsylvanian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 4 |
| *Taxocrinus\_wortheni* | Carboniferous | Serpukhovian | Pentacrinoidea | Flexibilia | 0 | 3.00 | 0.00 | 0.00 | 4 |
| *Neoplatrycrinus\_dilatatus* | Permian | Guadalupian | Camerata | Monobathrida | 0 | 1.00 | 0.00 | 0.00 | 4 |
| *Traumatocrinus\_sp* | Triassic | Late Triassic | Pentacrinoidea | Articulata | 1 | 1.57 | 0.53 | 0.34 | 4 |
| *Metacrinus\_interruptus* | Recent | Recent | Pentacrinoidea | Articulata | 3 | 6.64 | 0.92 | 0.14 | 4 |
| *Archaetaxocrinus\_burfordi* | Ordovician | Middle Ordovician | Pentacrinoidea | Flexibilia | 0 | 3.00 | 0.00 | 0.00 | 3 |
| *Cupulocrinus\_gracilis* | Ordovician | Middle Ordovician | Pentacrinoidea | Cyathoformes | 0 | 4.00 | 0.00 | 0.00 | 3 |
| *Ectenocrinus\_simplex* | Ordovician | Middle Ordovician | Pentacrinoidea | Disparida | 0 | 3.00 | 0.00 | 0.00 | 3 |
| *Nassoviocrinus\_longibrachiatus* | Silurian | Ludlow | Pentacrinoidea | Cyathoformes | 1 | 4.33 | 0.58 | 0.13 | 3 |
| *Antihomocrinus\_chapmani* | Devonian | Early Devonian | Pentacrinoidea | Cyathoformes | 1 | 3.33 | 0.58 | 0.17 | 3 |
| *Brabeocrinus\_christinae* | Carboniferous | Pennsylvanian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 3 |
| *Decadocrinus\_depressus* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 3 |
| *Exocrinus\_wanni* | Carboniferous | Pennsylvanian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 3 |
| *Hypselocrinus\_indianaensis* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 1 | 1.60 | 0.55 | 0.34 | 3 |
| *Oklahomacrinus\_loeblichi* | Carboniferous | Missourian | Pentacrinoidea | Cyathoformes | 0 | 2.00 | 0.00 | 0.00 | 3 |
| *Syntomocrinus\_sundaicus* | Permian | Guadalupian | Pentacrinoidea | Flexibilia | 0 | 2.00 | 0.00 | 0.00 | 3 |
| *Cassianocrinus\_varians* | Triassic | Ladinian | Pentacrinoidea | Articulata | 1 | 1.78 | 0.44 | 0.25 | 3 |
| *Isocrinus\_hanaii* | Cretaceous | Aptian | Pentacrinoidea | Disparida | 0 | 2.00 | 0.00 | 0.00 | 3 |
| *Isocrinus\_nehalemensis* | Neogene | Oligocene | Pentacrinoidea | Disparida | 0 | 2.00 | 0.00 | 0.00 | 3 |
| *Metacrinu\_musortomae* | Recent | Recent | Pentacrinoidea | Articulata | 3 | 5.27 | 1.01 | 0.19 | 3 |
| *Columbicrinus\_crassus* | Ordovician | Middle Ordovician | Pentacrinoidea | Disparida | 0 | 4.00 | 0.00 | 0.00 | 2 |
| *Dendrocrinus\_springeri* | Ordovician | Middle Ordovician | Pentacrinoidea | Cyathoformes | 0 | 6.00 | 0.00 | 0.00 | 2 |
| *Periechocrinus\_sp* | Silurian | Wenlock | Camerata | Monobathrida | 0 | 2.00 | 0.00 | 0.00 | 2 |
| *Sagenocrinites\_sp* | Silurian | Wenlock | Pentacrinoidea | Flexibilia | 1 | 2.25 | 0.50 | 0.22 | 2 |
| *Ophiocrinus\_stangeri* | Devonian | Early Devonian | Camerata | Diplobathrida | 0 | 2.00 | 0.00 | 0.00 | 2 |
| *Barycrinus\_lyoni* | Carboniferous | Carboniferous | Pentacrinoidea | Cyathoformes | 0 | 3.00 | 0.00 | 0.00 | 2 |
| *Cyathocrinites\_sp* | Carboniferous | Serpukhovian | Pentacrinoidea | Cyathoformes | 2 | 2.40 | 0.89 | 0.37 | 2 |
| *Cyathocrinus\_arboreus* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 1 | 3.50 | 0.71 | 0.20 | 2 |
| *Euonychocrinus\_simplex* | Carboniferous | Pennsylvanian | Pentacrinoidea | Flexibilia | 0 | 2.00 | 0.00 | 0.00 | 2 |
| *Histocrinus\_graphicus* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 0 | 2.00 | 0.00 | 0.00 | 2 |
| *Laudonocrinus\_subsinuatus* | Carboniferous | Pennsylvanian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 2 |
| *Macrocrinus\_mundulus* | Carboniferous | Mississippian | Camerata | Monobathrida | 0 | 2.00 | 0.00 | 0.00 | 2 |
| *Microcaracrinus\_conjugulus* | Carboniferous | Pennsylvanian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 2 |
| *Onychocrinus\_monroensis* | Carboniferous | Mississippian | Pentacrinoidea | Flexibilia | 1 | 3.50 | 0.58 | 0.16 | 2 |
| *Pachylocrinus\_gibsoni* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 0 | 2.00 | 0.00 | 0.00 | 2 |
| *Pachylocrinus\_subaequalis* | Carboniferous | Tournaisian | Pentacrinoidea | Cyathoformes | 0 | 2.00 | 0.00 | 0.00 | 2 |
| *Paramphicrinus\_oklahomaensis* | Carboniferous | Pennsylvanian | Pentacrinoidea | Flexibilia | 0 | 2.00 | 0.00 | 0.00 | 2 |
| *Pellecrinus\_hexadactylus* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 0 | 3.00 | 0.00 | 0.00 | 2 |
| *Plummericrinus\_striatus* | Carboniferous | Missourian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 2 |
| *Scytalocrinus\_disparilis* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 2 |
| *Stellarocrinus\_virgilensis* | Carboniferous | Pennsylvanian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 2 |
| *Taxocrinus\_nobilis* | Carboniferous | Carboniferous | Pentacrinoidea | Flexibilia | 1 | 2.50 | 0.58 | 0.23 | 2 |
| *Graphiocrinus\_timoricus* | Permian | Guadalupian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 2 |
| *Moapacrinus\_inornatus* | Permian | Cisuralian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 2 |
| *Neoplatrycrinus\_major* | Permian | Guadalupian | Camerata | Monobathrida | 0 | 1.00 | 0.00 | 0.00 | 2 |
| *Timorocrinus\_mirabilis* | Permian | Guadalupian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 2 |
| *Apiocrinus\_roissyanus* | Jurassic | Oxfordian | Pentacrinoidea | Articulata | 0 | 1.00 | 0.00 | 0.00 | 2 |
| *Balanocrinus\_gracilis* | Jurassic | Early Jurassic | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 2 |
| *Pentacrinites\_sp* | Jurassic | Early Jurassic | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 2 |
| *Pentacrinus\_briaroides* | Jurassic | Early Jurassic | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 2 |
| *Pentacrinus\_hiemeri* | Jurassic | Early Jurassic | Pentacrinoidea | Articulata | 0 | 2.00 | 0.00 | 0.00 | 2 |
| *Notocrinus\_rasmusseni* | Paleogene | Eocene | Pentacrinoidea |  | 1 | 2.33 | 0.58 | 0.25 | 2 |
| *Isocrinus\_oregonensis* | Neogene | Oligocene | Pentacrinoidea | Disparida | 1 | 1.67 | 0.58 | 0.35 | 2 |
| *Archaetaxocrinus\_lanei* | Ordovician | Middle Ordovician | Pentacrinoidea | Flexibilia | 0 | 3.00 | 0.00 | 0.00 | 1 |
| *Delgadocrinus\_oportovinum* | Ordovician | Middle Ordovician | Camerata | Monobathrida | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Camarocrinus\_sp* | Silurian | Pridoli | Camerata | Monobathrida | 0 | 2.00 | NA | NA | 1 |
| *Carpocrinus\_simplex* | Silurian | Silurian | Camerata | Monobathrida | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Cyathocrinites\_acinotubus* | Silurian | Wenlock | Pentacrinoidea | Cyathoformes | 0 | 3.00 | 0.00 | 0.00 | 1 |
| *Cyathocrinites\_capillaris* | Silurian | Wenlock | Pentacrinoidea | Cyathoformes | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Cyathocrinites\_goniodactylus* | Silurian | Wenlock | Pentacrinoidea | Cyathoformes | 1 | 1.67 | 0.58 | 0.35 | 1 |
| *Dendrocrinus\_arrugius* | Silurian | Ludlow | Pentacrinoidea | Cyathoformes | 0 | 6.00 | NA | NA | 1 |
| *Desmidocrinus\_heterodactylus* | Silurian | Wenlock | Camerata | Monobathrida | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Gissocrinus\_goniodactylus* | Silurian | Wenlock | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Nexocrinus\_wallanensis* | Silurian | Pridoli | Camerata | Diplobathrida | 0 | 2.00 | NA | NA | 1 |
| *Arthroacanta\_carpenteri* | Devonian | Middle Devonian | Camerata | Monobathrida | 0 | 2.00 | NA | NA | 1 |
| *Ophiocrinus\_nnettae* | Devonian | Lochkovian | Camerata | Diplobathrida | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Sacrinus\_hexensis* | Devonian | Early Devonian | Pentacrinoidea | Cyathoformes | 0 | 6.00 | NA | NA | 1 |
| *Stewbrecrinus\_terryi* | Devonian | Lochkovian | Pentacrinoidea | Cyathoformes | 0 | 4.00 | NA | NA | 1 |
| *Abatocrinus\_grandis* | Carboniferous | Mississippian | Camerata | Monobathrida | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Abrotocrinus\_springeri* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | NA | NA | 1 |
| *Agaricocrinus\_splendens* | Carboniferous | Mississippian | Pentacrinoidea | Monobathrida | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Alcimocrinus\_girtyi* | Carboniferous | Atokan | Pentacrinoidea | Cyathoformes | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Apographiocrinus\_typicalis* | Carboniferous | Pennsylvanian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Atrapocrinus\_mutatus* | Carboniferous | Atokan | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Barycrinus\_neglectus* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 0 | 4.00 | 0.00 | 0.00 | 1 |
| *Barycrinus\_princeps* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Synbathocrinus\_swallovi* | Carboniferous | Mississippian | Pentacrinoidea | Disparida | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Ciathrocrinus\_grileyi* | Carboniferous | Atokan | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Contocrinus\_coupi* | Carboniferous | Pennsylvanian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Cyathocrinites\_macrocrinus* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 0 | 2.00 | NA | NA | 1 |
| *Cyathocrinites\_opimus* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Cyathocrinites\_poterium* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Cyathocrinus\_angulatus* | Carboniferous | Serpukhovian | Pentacrinoidea | Cyathoformes | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Cydrocrinus\_concinnus* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Decadocrinus\_tumidulus* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 1 | 2.50 | 0.71 | 0.28 | 1 |
| *Endelocrinus\_tumidus* | Carboniferous | Pennsylvanian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | NA | NA | 1 |
| *Eretmocrinus\_commendabilis* | Carboniferous | Mississippian | Camerata | Monobathrida | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Exocrinus\_sp* | Carboniferous | Missourian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Exoriocrinus\_lasallensis* | Carboniferous | Pennsylvanian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Exoriocrinus\_rugosus* | Carboniferous | Missourian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | NA | NA | 1 |
| *Glaukosocrinus\_planus* | Carboniferous | Missourian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Graphiocrinus\_mcadamsi* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Graphiocrinus\_sp* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Haeretocrinus\_wagneri* | Carboniferous | Pennsylvanian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Hypselocrinus\_hoveyi* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Moundocrinus\_osagensis* | Carboniferous | Pennsylvanian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | NA | NA | 1 |
| *Oklahornacrinus\_frostae* | Carboniferous | Atokan | Pentacrinoidea | Cyathoformes | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Onychocrinus\_exculptus* | Carboniferous | Mississippian | Pentacrinoidea | Flexibilia | 0 | 4.00 | 0.00 | 0.00 | 1 |
| *Pachylocrinus\_manus* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Paradichocrinus\_polydactylus* | Carboniferous | Mississippian | Camerata | Monobathrida | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Parisocrinus\_crawfordsvillensis* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 0 | 3.00 | 0.00 | 0.00 | 1 |
| *Parulocrinus\_pontiacensis* | Carboniferous | Pennsylvanian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Platycrinites\_shumardanus* | Carboniferous | Serpukhovian | Camerata | Monobathrida | 0 | 1.00 | NA | NA | 1 |
| *Plummericrinus\_credos* | Carboniferous | Pennsylvanian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Proallosocrinus\_exemptus* | Carboniferous | Atokan | Pentacrinoidea | Cyathoformes | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Probletocrinus\_curtus* | Carboniferous | Pennsylvanian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Sarocrinus\_granilineus* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 0 | 2.00 | NA | NA | 1 |
| *Springericrinus\_magniventrus* | Carboniferous | Mississippian | Pentacrinoidea | Cyathoformes | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Stellarocrinus\_bilineatus* | Carboniferous | Pennsylvanian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Stenopecrinus\_sp* | Carboniferous | Pennsylvanian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Synerocrinus\_incurous* | Carboniferous | Pennsylvanian | Pentacrinoidea | Flexibilia | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Taxocrinus\_whitfieldi* | Carboniferous | Mississippian | Pentacrinoidea | Flexibilia | 0 | 3.00 | 0.00 | 0.00 | 1 |
| *Terpnocrinus\_ocoyaensis* | Carboniferous | Pennsylvanian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Ulocrinus\_convexus* | Carboniferous | Pennsylvanian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Uperocrinus\_marinus* | Carboniferous | Mississippian | Camerata | Monobathrida | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Agnostocrinus\_typus* | Permian | Cisuralian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Anechocrinus\_nalbiaensis* | Permian | Permian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | NA | NA | 1 |
| *Archaeoisocrinus\_occiduaustralis* | Permian | Permian | Pentacrinoidea | Articulata | 1 | 1.67 | 0.58 | 0.35 | 1 |
| *Arroyocrimus\_popenoei* | Permian | Cisuralian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | NA | NA | 1 |
| *Bursacrinus\_magnificus* | Permian | Guadalupian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Bursacrinus\_procerus* | Permian | Guadalupian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Bursacrinus\_pyramidatus* | Permian | Guadalupian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Calycocrinus\_curvatus* | Permian | Guadalupian | Pentacrinoidea | Flexibilia | 0 | 3.00 | 0.00 | 0.00 | 1 |
| *Calycocrinus\_malaianus* | Permian | Guadalupian | Pentacrinoidea | Flexibilia | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Calycocrinus\_spinosus* | Permian | Guadalupian | Pentacrinoidea | Flexibilia | 0 | 3.00 | 0.00 | 0.00 | 1 |
| *Delocrinus\_malaianus* | Permian | Guadalupian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Elibatocrinus\_elongatus* | Permian | Cisuralian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Exocrinus\_moorei* | Permian | Cisuralian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Loxocrinus\_globulus* | Permian | Guadalupian | Pentacrinoidea | Flexibilia | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Meganotocrinus\_princeps* | Permian | Permian | Pentacrinoidea | Incertae sedis | 0 | 2.00 | NA | NA | 1 |
| *Moapacrinus\_rotundatus* | Permian | Cisuralian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Notiocrinus\_timoricus* | Permian | Permian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Palaeoholopus\_pretiosus* | Permian | Guadalupian | Pentacrinoidea | Flexibilia | 0 | 3.00 | NA | NA | 1 |
| *Perimestocrinus\_nevadensis* | Permian | Cisuralian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | NA | NA | 1 |
| *Perimestocrinus\_oasis* | Permian | Cisuralian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Pleurocrinus\_depressus* | Permian | Guadalupian | Camerata | Monobathrida | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Pleurocrinus\_goldfussi* | Permian | Guadalupian | Camerata | Monobathrida | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Pleurocrinus\_spectabilis* | Permian | Guadalupian | Camerata | Monobathrida | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Prophyllocrinus\_cuspidatus* | Permian | Guadalupian | Pentacrinoidea | Flexibilia | 0 | 2.00 | NA | NA | 1 |
| *Prophyllocrinus\_dentatus* | Permian | Guadalupian | Pentacrinoidea | Flexibilia | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Skaiocrinus\_granulosus* | Permian | Permian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | NA | NA | 1 |
| *Stachyocrinus\_zea* | Permian | Guadalupian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Stellarocrinus\_complus* | Permian | Cisuralian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Stomiocirnus\_ferruginus* | Permian | Permian | Camerata | Monobathrida | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Synyphocrinus\_permicus* | Permian | Cisuralian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | NA | NA | 1 |
| *Thalassocrinus\_gracilis* | Permian | Guadalupian | Pentacrinoidea | Articulata | 0 | 1.00 | NA | NA | 1 |
| *Timorocrinus\_spinosus* | Permian | Guadalupian | Pentacrinoidea | Cyathoformes | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Dadocrinus\_kunischi* | Triassic | Middle Triassic | Pentacrinoidea | Articulata | 0 | 2.00 | NA | NA | 1 |
| *Poteriocrinus\_sp* | Triassic | Mississippian | Pentacrinoidea | Cyathoformes | 1 | 3.50 | 0.71 | 0.20 | 1 |
| *Apiocrinus\_magnificus* | Jurassic | Oxfordian | Pentacrinoidea | Articulata | 0 | 1.00 | 0.00 | 0.00 | 1 |
| *Isocrinus\_robustus* | Jurassic | Early Jurassic | Pentacrinoidea | Disparida | 0 | 2.00 | 0.00 | 0.00 | 1 |
| *Metacrinus\_japonicus* | Recent | Recent | Pentacrinoidea | Articulata | 1 | 7.33 | 0.58 | 0.08 | 1 |