**Supplemental**

Supplemental Table 1 - Summary table showing the number of collections, generic richness, and total individuals reported for each time bin. Data references and localities of collections are also shown.

|  |  |  |
| --- | --- | --- |
|   | Panthalassa | Tethys |
| *Time Bins* | *# of Collections* | *Generic Richness* | *# of Specimens* | *References* | *Localities* | *# of Collections* | *Generic Richness* | *# of Specimens* | *References* | *Localities* |
| Induan | 37 | 21 | 3581 | Schubert and Bottjer 1995Fraiser and Bottjer 2007Hofmann et al. 2013aHofmann et al. 2013a | Western U.S.A.Western U.S.A.Western U.S.A.Western U.S.A. | 27 | 32 | 1585 | Fraiser and Bottjer 2007 | Italy |
| Yin et al. 1994 | South China |
| Kaim et al. 2010 | South China |
| Pietsch and Bottjer 2015 | Italy |
| Fraiser and Bottjer 2007 | Italy |
|  |  |  |  |
| Smithian | 44 | 34 | 6562 | Schubert and Bottjer 1995 | Western U.S.A. | 4 | 17 | 214 | Pietsch and Bottjer 2015 | Italy |
| Tozer 1961 | Canada |  |  |
| Fraiser and Bottjer 2007 | Western U.S.A. |  |  |
| Hautmann and Nützel 2005 | Western U.S.A. |  |   |
| Newell and Boyd 1975 | Western U.S.A. |   |   |
| Nützel and Schulbert 2005 | Western U.S.A. |   |   |
| Brayard et al. 2013 | Western U.S.A. |   |   |
| Hofmann et al. 2014 | Western U.S.A. |   |   |
| Spathian | 59 | 41 | 6919 | Schubert and Bottjer 1995 | Western U.S.A. | 8 | 13 | 356 | Fraiser and Bottjer 2007 | Italy |
| Fraiser and Bottjer 2007 | Western U.S.A. | Wasmer et al. 2012 | Pakistan |
| McGowan et al. 2009 | Western U.S.A. |  |   |
| Hofmann et al. 2013b | Western U.S.A. |   |   |
| Hautmann et al. 2013 | Western U.S.A. |   |   |
| Hofmann et al. 2014 | Western U.S.A. |   |   |

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