

# SUPPLEMENTARY TABLES & MAPS TO “Late Triassic sequence of paleogeographic maps assisted by the GPMDB”

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The adopted selections of Upper Triassic GPMDB data are shown in the Table SM-01 to Table SM-08, with each group of listed data displayed on a Robinson planisphere (horthophanic projection). All GPMDB data extractions were performed under the "*Excludes known secondaries*" condition.

In the planispheres that accompany the tables, the sampling sites (bold red dots) and relative paleopoles (bold red dots) are joined by large-circle segments (in blue). the confidence ellipses are in blue. Fisher's average circle is in red.

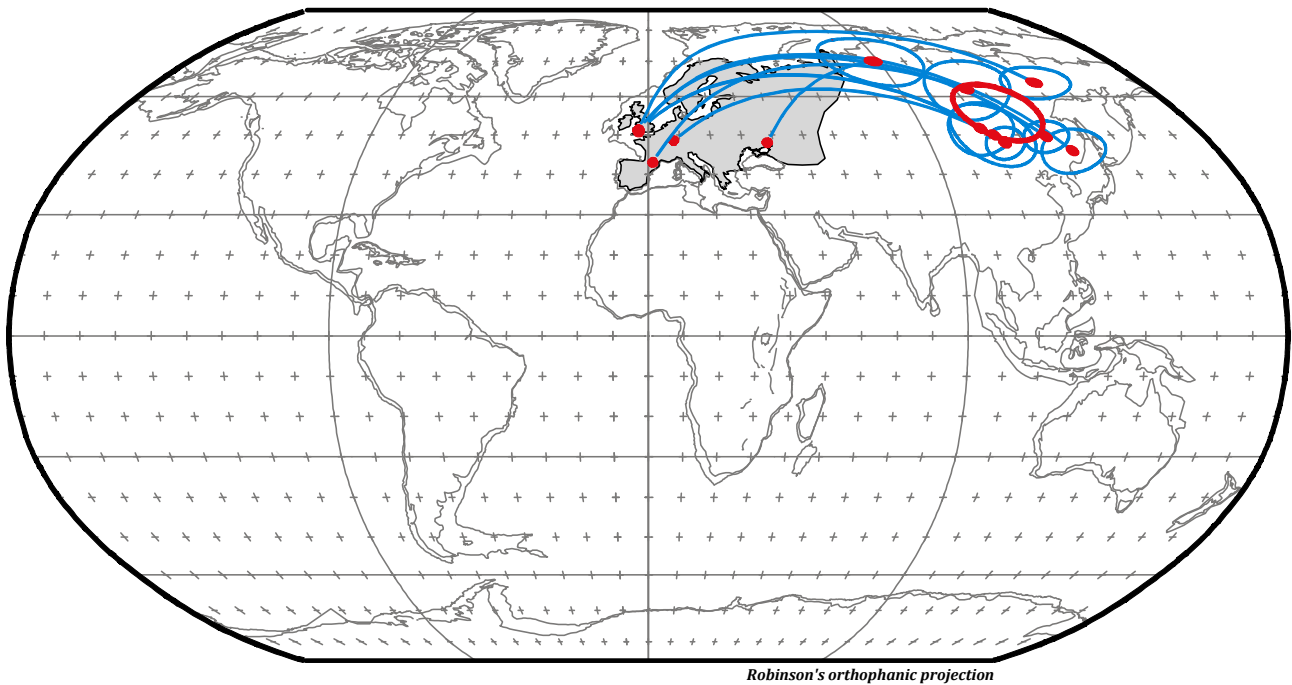
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**TABLE SM-01**

**EUROPE – UPPER TRIASSIC – ADOPTED GPMDB POLES**

Site		Age Window	Confidence Ellipse		Pole		Quality	Authors	Year
Lat.	Lon.	My	$\Delta$ incl.	$\Delta$ decl.	Lat.	Lon.			
51.2	-3.3	196 - 204	4.0	6.2	63.9	141.2	4	Hounslow <i>et al.</i>	2004
48.5	8.0	200 - 204	8.0	8.0	50.0	112.0	4	Edel & Düringer	1997
51.2	-3.3	200 - 217	5.4	8.3	51.7	108.9	4	Hounslow <i>et al.</i>	2004
51.2	-3.3	204 - 217	3.3	5.8	49.6	128.4	4	Briden & Daniels	1999
51.2	-3.3	204 - 217	3.2	5.3	47.9	114.0	4	Hounslow <i>et al.</i>	2004
50.7	-3.2	200 - 228	4.6	8.5	46.0	133.9	3	Creer	1959
43.0	1.3	200 - 228	6.1	9.4	62.1	114.2	3	Girdler	1968
48.0	38.0	200 - 228	6.4	7.1	70.0	88.0	2	Rusakov	1971

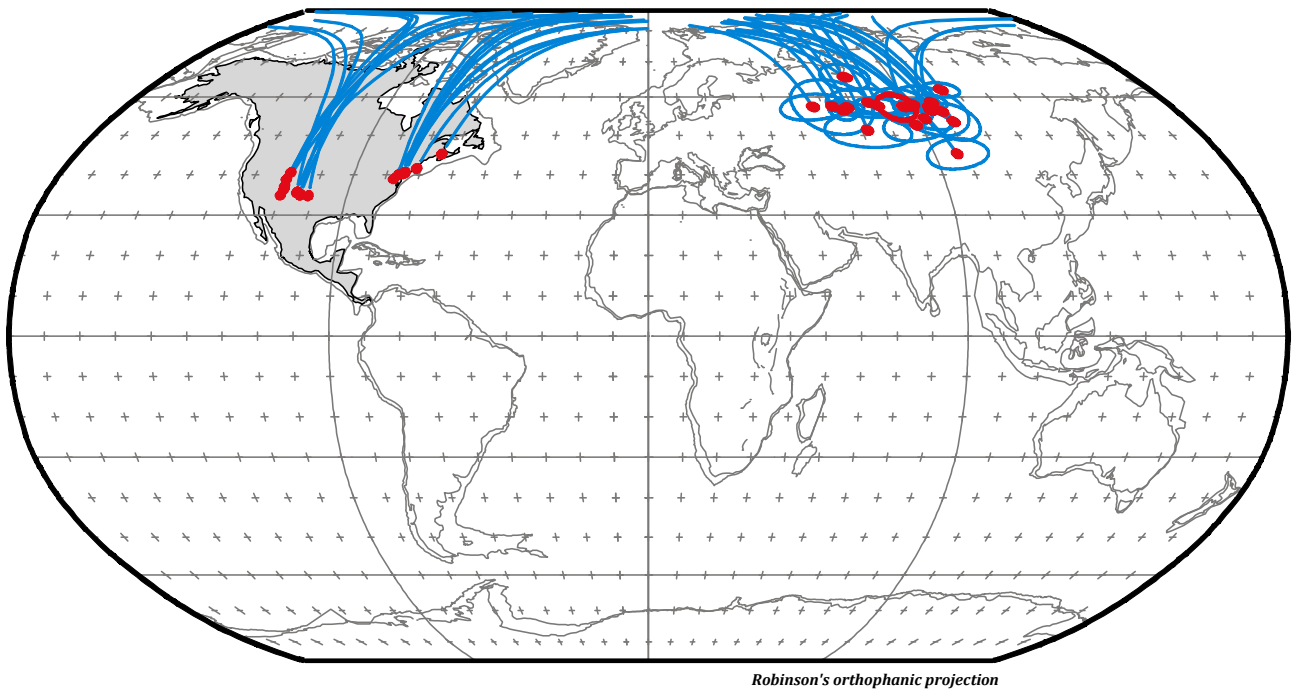


**Tab. SM-01** – Upper Triassic GPMDB paleopoles of Europe and their Fischer average (red circle), with the listed data displayed on the Robinson planisphere.

**TABLE SM-02**

**NORTH AMERICA – UPPER TRIASSIC – ADOPTED GPMDB POLES**

Site		Age Window	Confidence Ellipse		Pole		Quality	Authors	Year
Lat.	Lon.	My	$\Delta$ incl.	$\Delta$ decl.	Lat.	Lon.			
39.0	-77.5	194 - 208	3.7	3.7	65.5	73.1	4	Kodama <i>et al.</i>	1994
40.6	-74.6	198 - 204	2.1	2.7	58.6	98.4	4	Kent <i>et al.</i>	1995
37.26	-109.7	200 - 204	3.3	6.5	57.4	56.6	4	Molina-Garza <i>et al.</i>	2003
40.57	-109.6	200 - 204	4.4	8.8	51.3	71.7	4	Molina-Garza <i>et al.</i>	2003
40.6	-74.8	190 - 222	1.6	3.1	57.5	90.0	3	McIntosh <i>et al.</i>	1985
40.5	-74.6	202 - 210	1.4	2.7	58.0	91.5	4	Kent <i>et al.</i>	1995
35.7	-105.3	204 - 210	3.9	7.7	58.5	76.5	4	Molina-Garza <i>et al.</i>	1996
40.5	-74.6	204 - 213	1.2	2.4	57.2	96.5	4	Kent <i>et al.</i>	1995
39.0	-110.0	204 - 217	7.3	7.3	57.5	63.3	4	Kent & Witte	1993
36.5	-109.5	207 - 217	2.6	2.6	56.5	66.4	4	Bazard & Butler	1991
35.0	-103.9	208 - 217	2.1	4.2	57.7	79.1	3	Reeve & Helsley	1972
35.0	-104.0	210 - 217	5.0	5.0	57.4	87.8	4	Bazard & Butler	1991
40.0	-76.5	200 - 228	2.0	3.0	62.0	105.0	2	Beck	1965
45.2	-65.0	200 - 228	3.6	7.2	45.3	97.1	3	Symons <i>et al.</i>	1989
41.6	-71.4	200 - 228	3.7	7.3	52.6	88.4	4	McEnroe	1995
40.3	-74.9	210 - 220	1.1	1.2	56.2	99.9	4	Kent <i>et al.</i>	1995
34.8	-101.5	210 - 222	6.6	6.6	56.4	96.3	4	Molina-Garza <i>et al.</i>	1995
35.0	-109.9	210 - 222	1.5	3.0	57.2	68.3	4	Steiner & Lucas	2000
40.3	-75.3	210 - 223	4.8	4.8	53.5	101.6	4	Witte & Kent	1989
35.6	-105.3	210 - 228	2.6	5.1	54.3	92.6	4	Molina-Garza <i>et al.</i>	1996

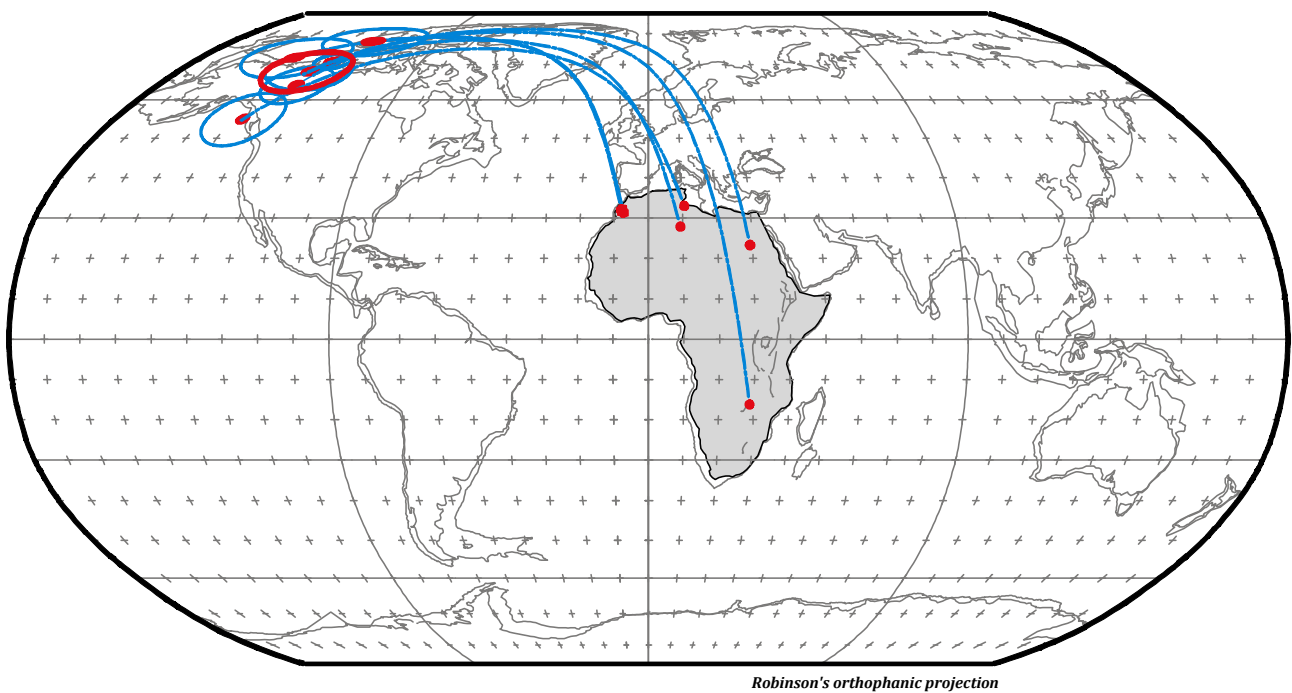


**Tab. SM-02** – Upper Triassic GPMDB paleopoles of North America and their Fischer average (red circle), with the listed data displayed on the Robinson planisphere.

**TABLE SM-03**

**AFRICA – UPPER TRIASSIC – ADOPTED GPMDB POLES**

Site		Age Window	Confidence Ellipse		Pole		Quality	Authors	Year
Lat.	Lon.	My	$\Delta$ incl.	$\Delta$ decl.	Lat.	Lon.			
32.0	-8.0	182 - 211	6.0	6.0	72.1	217.7	2	Westphal <i>et al.</i>	1979
31.5	-7.5	199 - 201	4.6	4.6	77.2	240.9	4	Knight <i>et al.</i>	2004
27.9	9.3	176 - 228	2.3	2.3	70.9	235.1	4	Kies <i>et al.</i>	1995
-16.2	28.8	200 - 228	5.0	6.5	68.0	230.5	2	Opdyke	1964
33.0	10.6	200 - 228	6.9	6.9	54.9	223.3	3	Ghorabi & Henry	1991
23.3	29.3	211 - 221	5.1	5.1	64.1	230.7	2	Saradeth <i>et al.</i>	1989

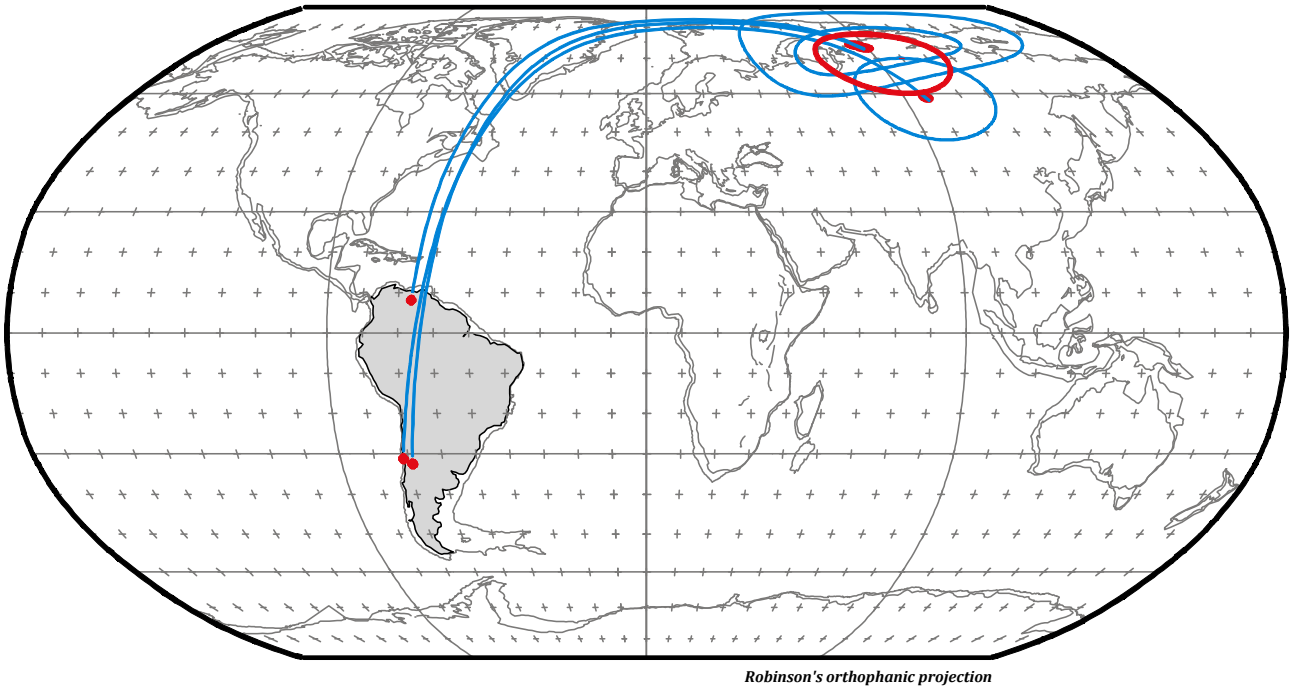


**Tab. SM-03** – Upper Triassic GPMDB paleopoles of Africa and their Fischer average (red circle), with the listed data displayed on the Robinson planisphere.

**TABLE SM-04**

**SOUTH AMERICA – UPPER TRIASSIC – ADOPTED GPMDB POLES**

Site		Age Window	Confidence Ellipse		Pole		Quality	Authors	Year
Lat.	Lon.	My	$\Delta$ incl.	$\Delta$ decl.	Lat.	Lon.			
8.1	-66.4	192 - 205	5.8	11.4	73.2	88.5	2	MacDonald & Opdyke	1974
-32.5	-69.1	200 - 228	11.0	18.0	74.0	86.0	2	Valencio	1969
-31.2	-71.5	217 - 228	10.9	12.0	59.0	97.5	4	Forsythe <i>et al.</i>	1987

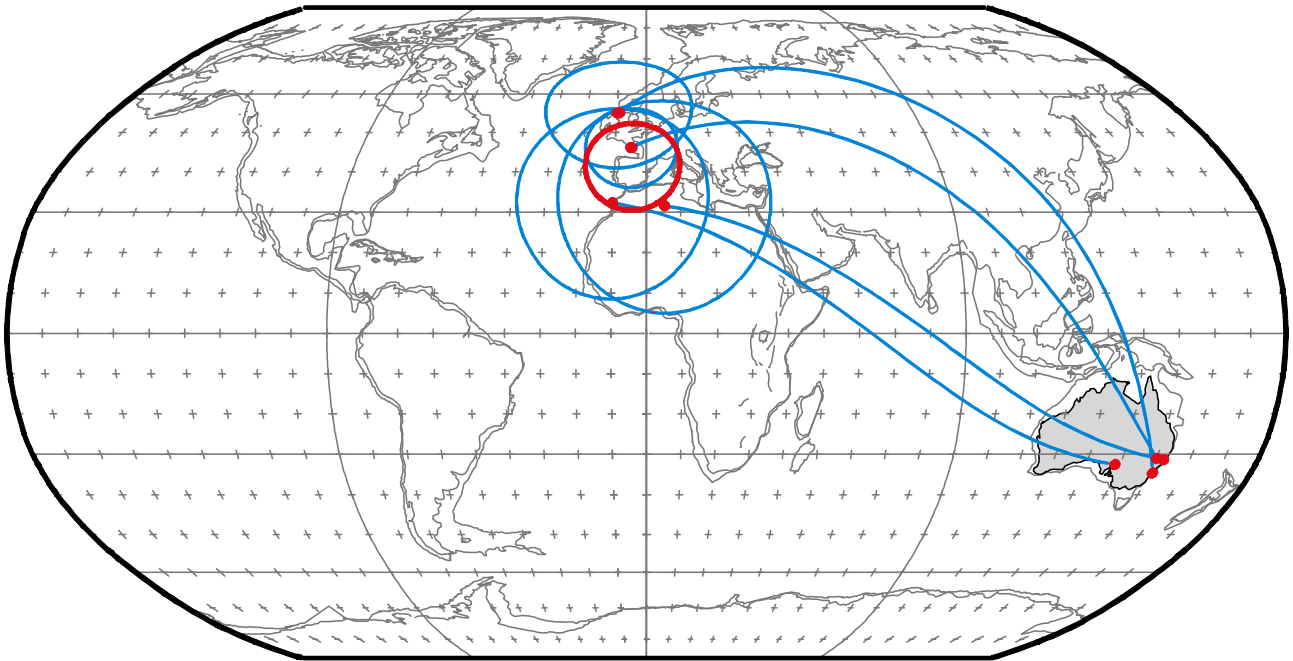


**Tab. SM-04** – Upper Triassic GPMDB paleopoles of South America and their Fischer average (red circle), with the listed data displayed on the Robinson planisphere.

**TABLE SM-05**

**AUSTRALIA – UPPER TRIASSIC – ADOPTED GPMDB POLES**

Site		Age Window	Confidence Ellipse		Pole		Quality	Authors	Year
Lat.	Lon.	My	$\Delta$ incl.	$\Delta$ decl.	Lat.	Lon.			
-31.0	150.0	187 - 207	10.0	10.0	46.1	355.2	2	Schmidt	1976
-32.5	138.5	200 - 228	23.8	23.8	32.3	349.9	2	Schmidt <i>et al.</i>	1976
-34.6	150.8	190 - 210	14.0	14.0	55.0	350.6	4	Schmidt	1990
-31.3	152.3	200 - 228	26.6	26.6	31.6	5.3	4	Schmidt <i>et al.</i>	1994

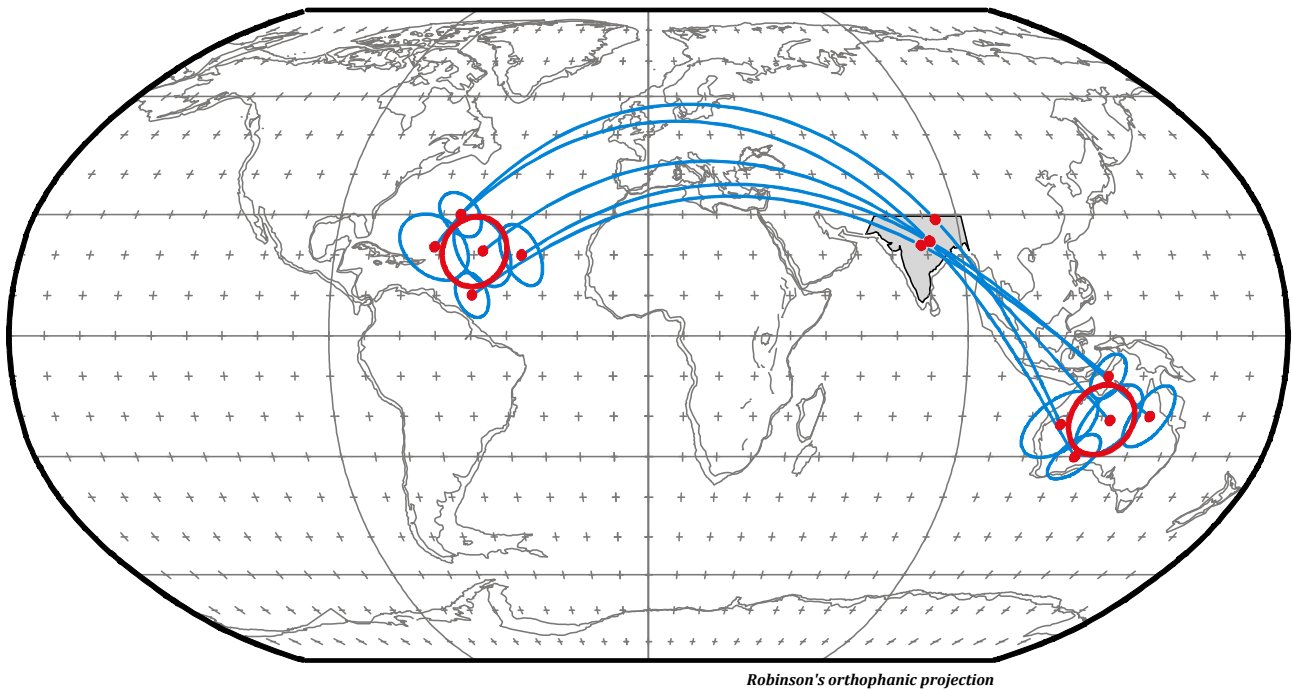


**Tab. SM-05** – Upper Triassic GPMDB paleopoles of Australia and their Fischer average (red circle), with the listed data displayed on the Robinson planisphere.

**TABLE SM-06**

**INDIA – UPPER TRIASSIC – ADOPTED GPMDB POLES**

Site		Age Window	Confidence Ellipse		Pole		Quality	Authors	Year
Lat.	Lon.	My	$\Delta$ incl.	$\Delta$ decl.	Lat.	Lon.			
22.4	78.4	176 - 228	4.0	6.1	10.1	310.1	3	Wensink	1968
23.4	81.1	200 - 204	6.1	10.1	21.0	312.5	4	Agarwal	1980
23.4	81.0	200 - 228	4.0	6.8	30.0	305.0	3	Bhalla & Verma	1969
23.4	81.0	210 - 228	4.6	8.5	20.0	323.6	4	Agarwal	1980
28.8	83.7	200 - 204	6.8	10.5	22.0	298.5	4	Klootwijk - Bingham	1980

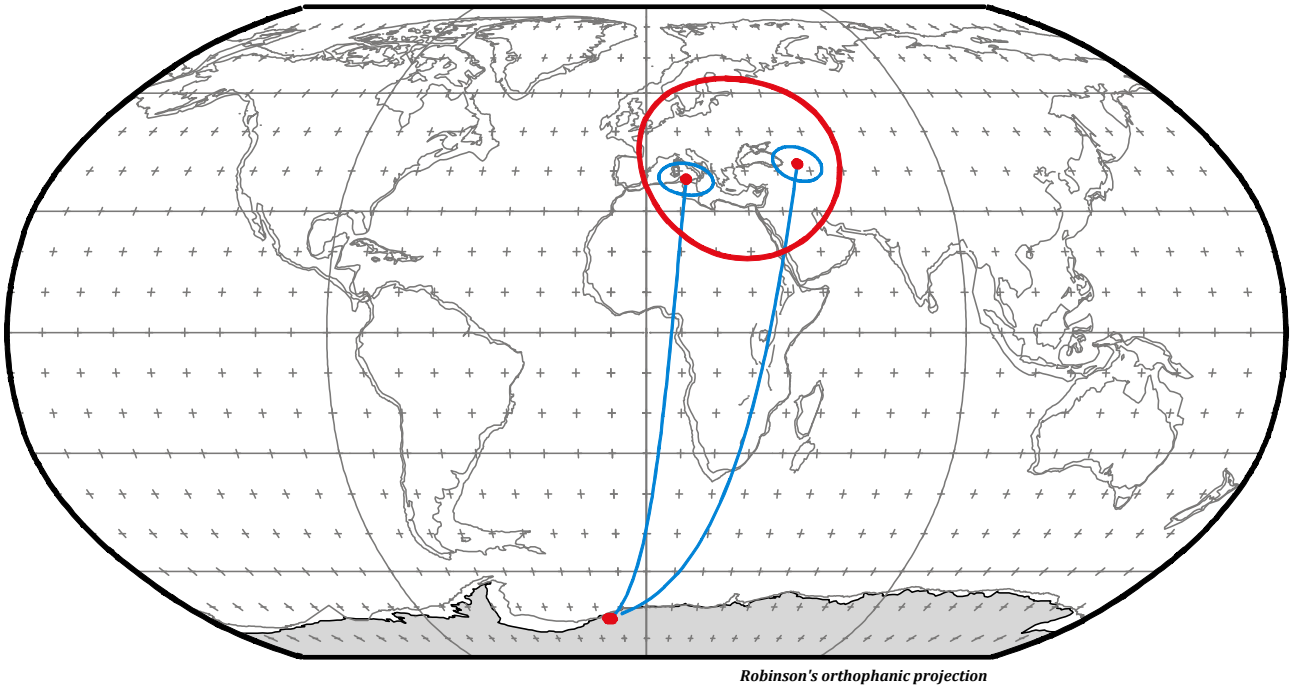


**Tab. SM-06** – Upper Triassic GPMDB paleopoles of India, with the listed data displayed on the Robinson planisphere. Indian paleopoles are plotted together with their antipodes (antipode poles), and both groups and their associated Fisher's average (red circles) are alternatively considered in the variable radius paleogeographic reconstructions.

**TABLE SM-07**

**ANTARCTICA – UPPER TRIASSIC – ADOPTED GPMDB POLES**

Site		Age Window	Confidence Ellipse		Pole		Quality	Authors	Year
Lat.	Lon.	My	$\Delta$ incl.	$\Delta$ decl.	Lat.	Lon.			
-73.3	-15.0	160 - 230	4.2	5.6	41.8	46.5	3	Lovlie	1979
-73.7	-14.9	165 - 215	3.9	6.5	38.0	12.0	3	Lovlie & Mitchell	1989



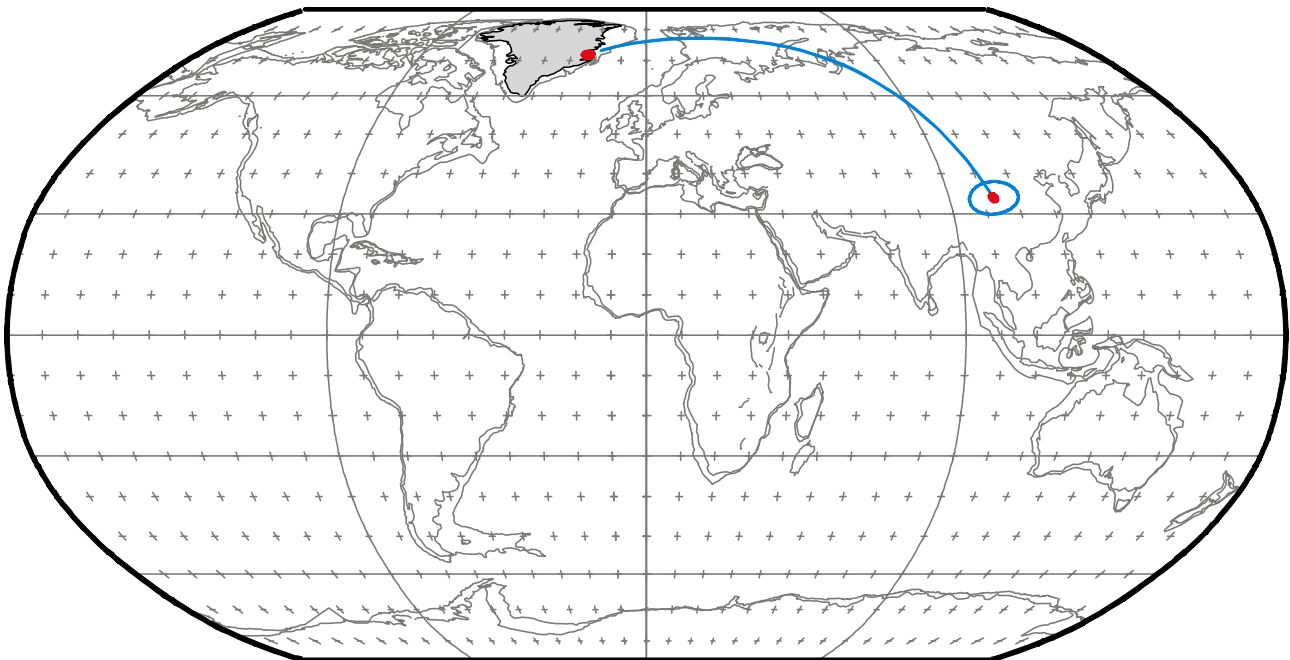
**Tab. SM-07** – Upper Triassic GPMDB paleopoles of Antarctica and their Fischer average (red circle), with the listed data displayed on the Robinson planisphere.



## TABLE SM-08

### GREENLAND – UPPER TRIASSIC – ADOPTED GPMDB POLES

Site		Age Window	Confidence Ellipse		Pole		Quality	Authors	Year
Lat.	Lon.	My	$\Delta$ incl.	$\Delta$ decl.	Lat.	Lon.			
71.7	-23.4	217 - 228	3.8	6.4	34.0	103.2	2	Reeve <i>et al.</i>	1974



*Robinson's orthographic projection*

**Tab. SM-08** – Upper Triassic GPMDB paleopole of Greenland, with the listed data displayed on the Robinson planisphere. The only Upper Triassic paleopole of Greenland is too far to the South-East, and is not sufficient to draw definitive conclusions. Then, also the position of this continental bloc, that is held in the grip between North America and Europe, is helpful in order to plot paleogeographical reconstructions.