The **PLATES** 2020 Atlas of Plate Reconstructions (500 Ma to Present Day)

By
L.A. Lawver, I.O. Norton, I.W.D. Dalziel, and M.D. Davis

Progress Report No. 396-1220

Phone: (512) 471-0488 Internet: plates@ig.utexas.edu

©2020, University of Texas Institute for Geophysics
December 15, 2020

The **PLATES** Project
Institute for Geophysics
The University of Texas at Austin
J.J. Pickle Research Campus, Bldg. 196
10100 Burnet Road
Austin TX 78758-4445

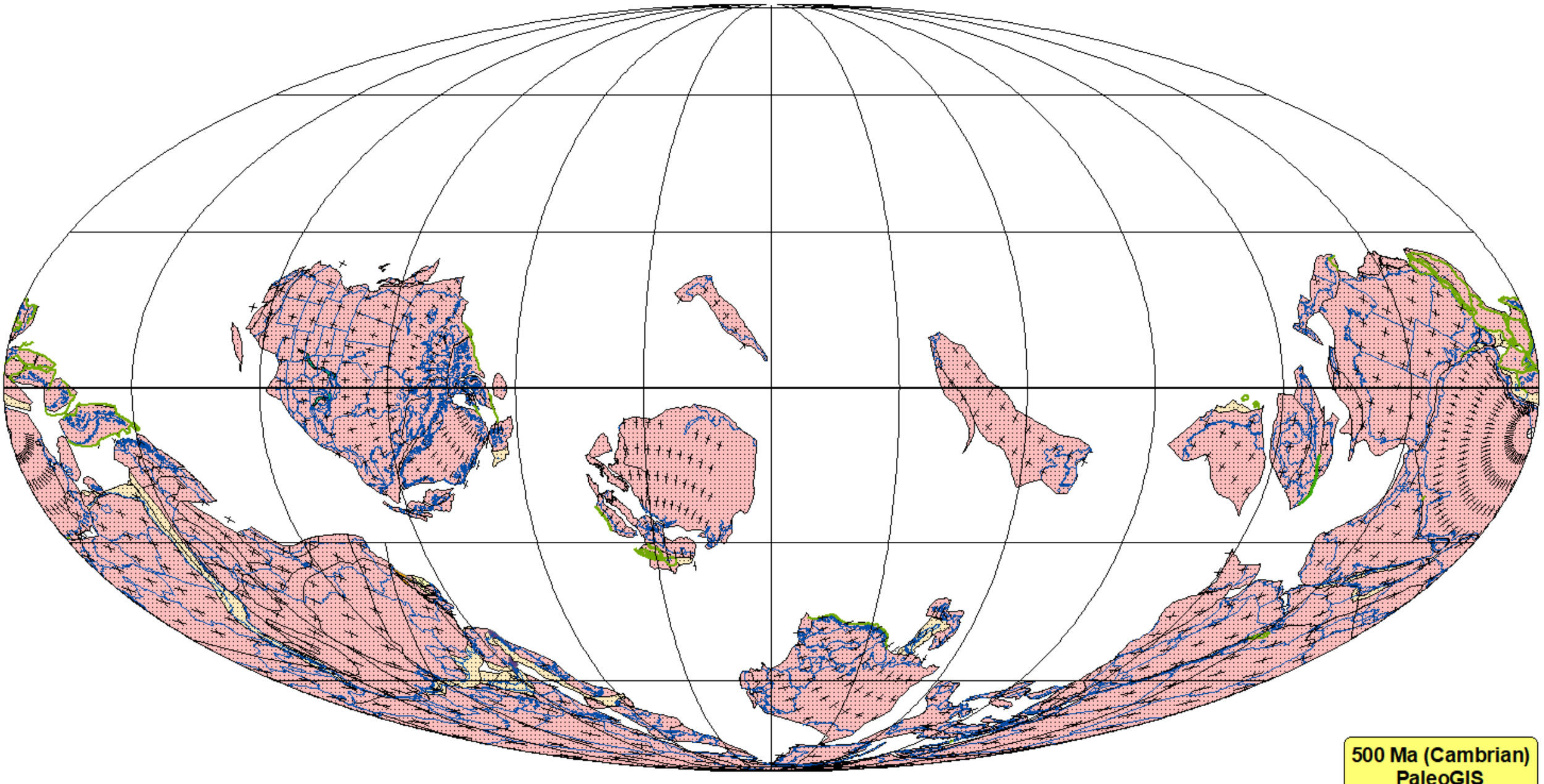
Principle Investigators: Lawrence A. Lawver, Ian W.D. Dalziel, and Ian O. Norton
Project Manager: Marcy B. Davis

This atlas was made possible through the scientific contributions of many researchers, from UTIG and from other institutions. Their efforts are highly appreciated by the members of the **PLATES** research team.

The atlas was created using the PaleoGIS (paleogis.com) for ArcGIS plate reconstruction software by The Rothwell Group, L.P., and the GPlates (http://www.gplates.org) plate reconstruction software.

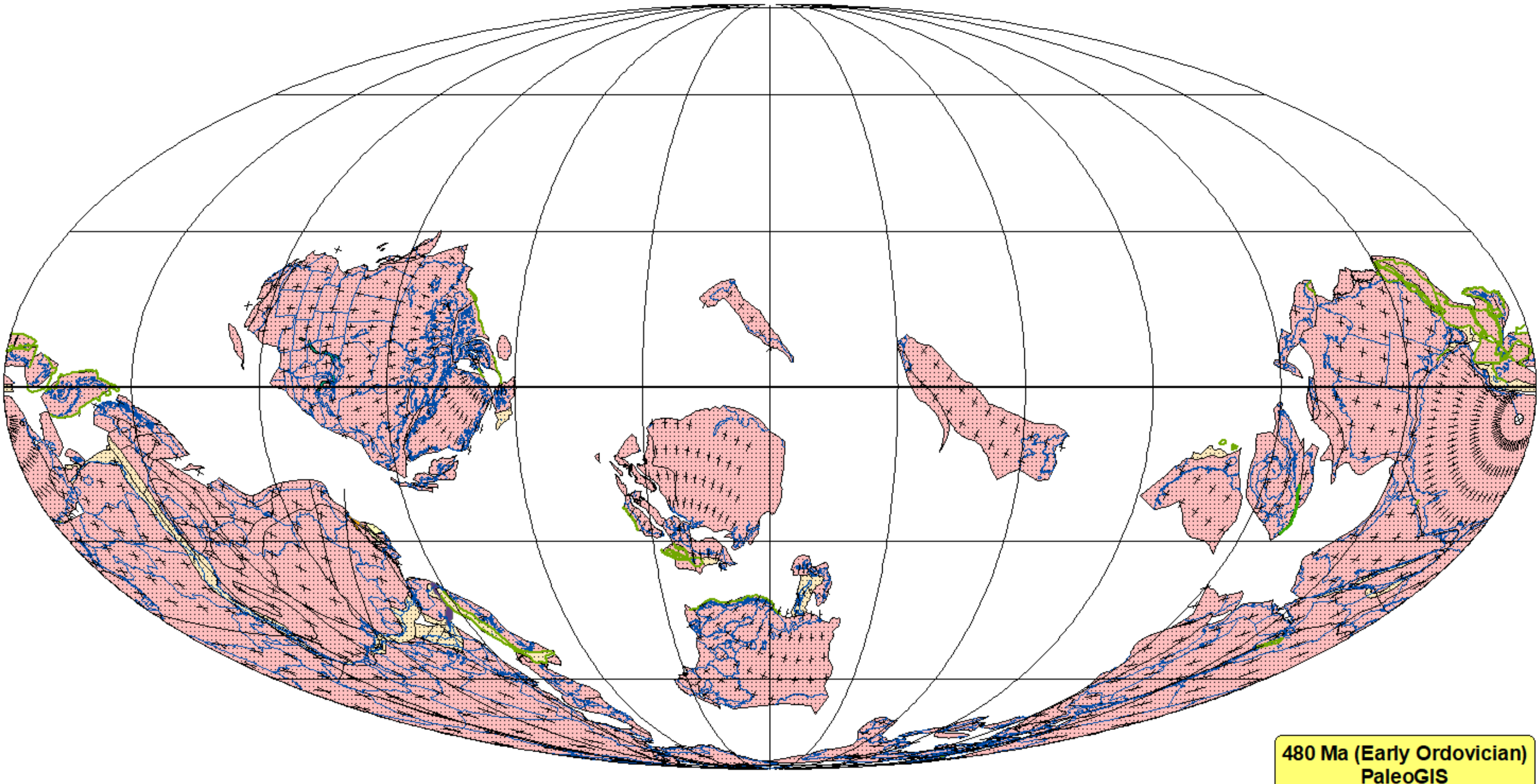
This atlas should be referenced as follows: Lawver, L.A., Norton, I.O., Dalziel, I.W.D., Davis, M.D., 2020, The **PLATES** 2020 Atlas of Plate Reconstructions (500 Ma to Present Day), **PLATES** Progress Report No. 396-1220, University of Texas Institute for Geophysics Technical Report No. 238, 29p.

PLATES Project, UTIG, Atlas 2020



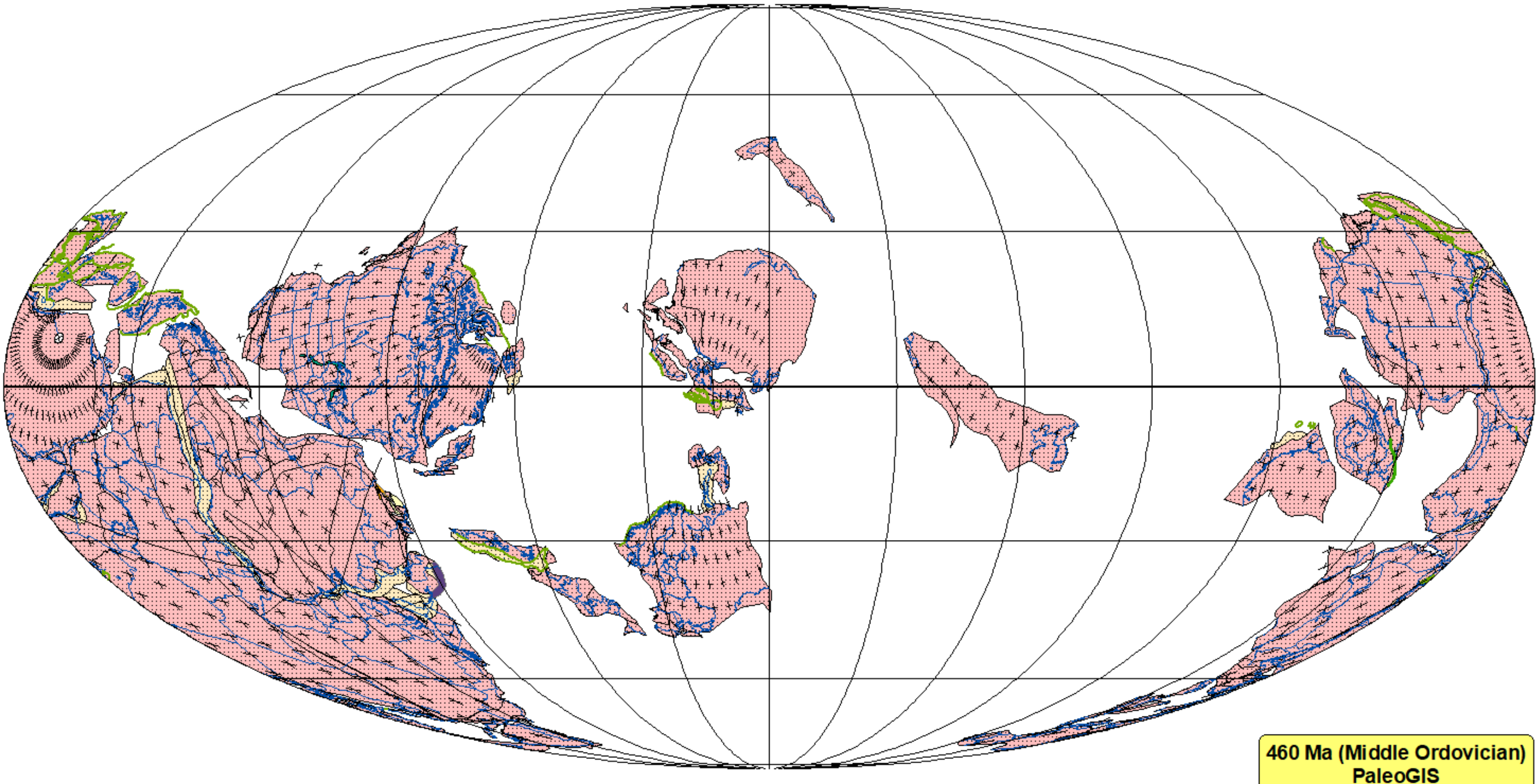
500 Ma (Cambrian)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



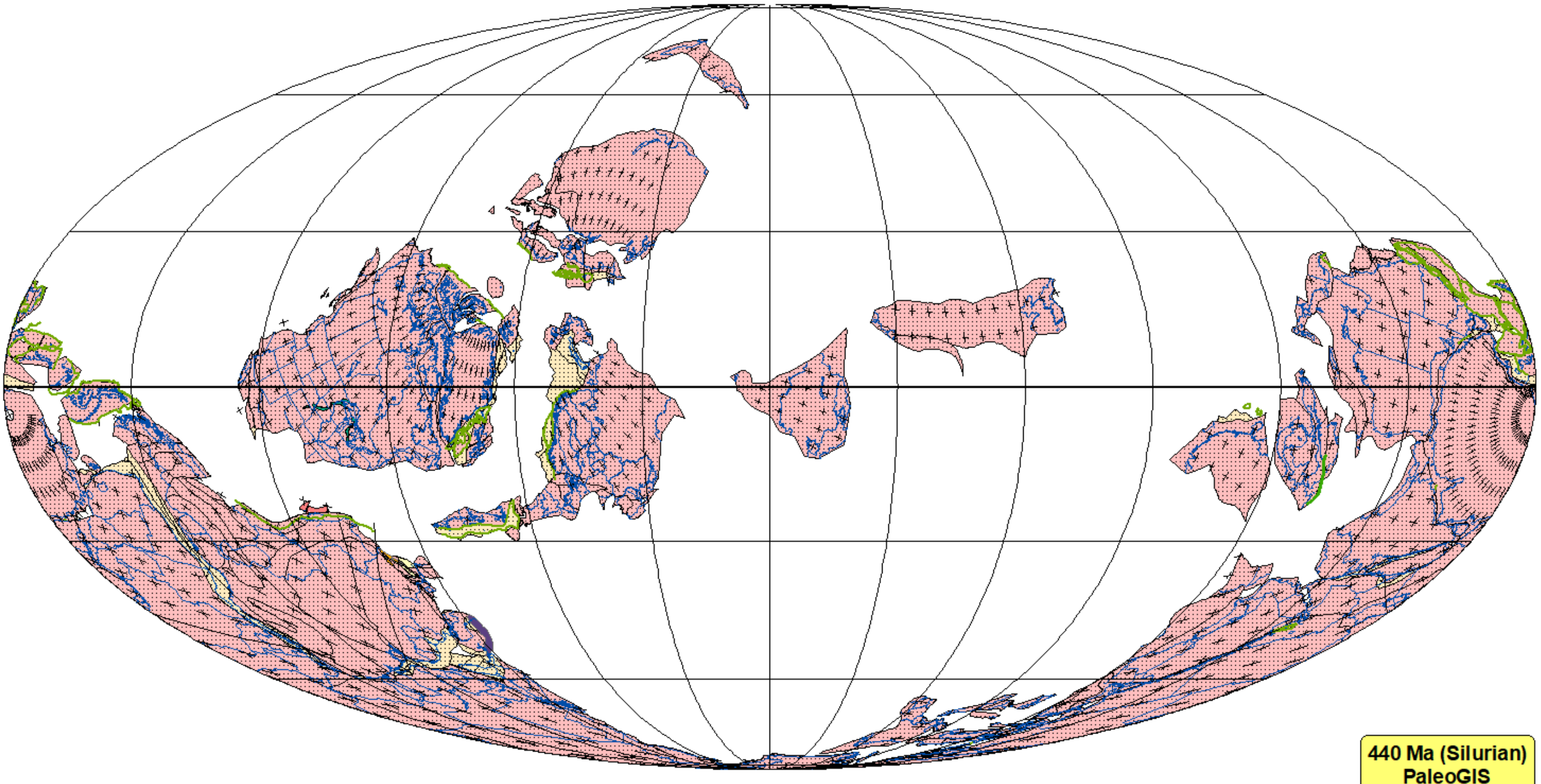
480 Ma (Early Ordovician)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



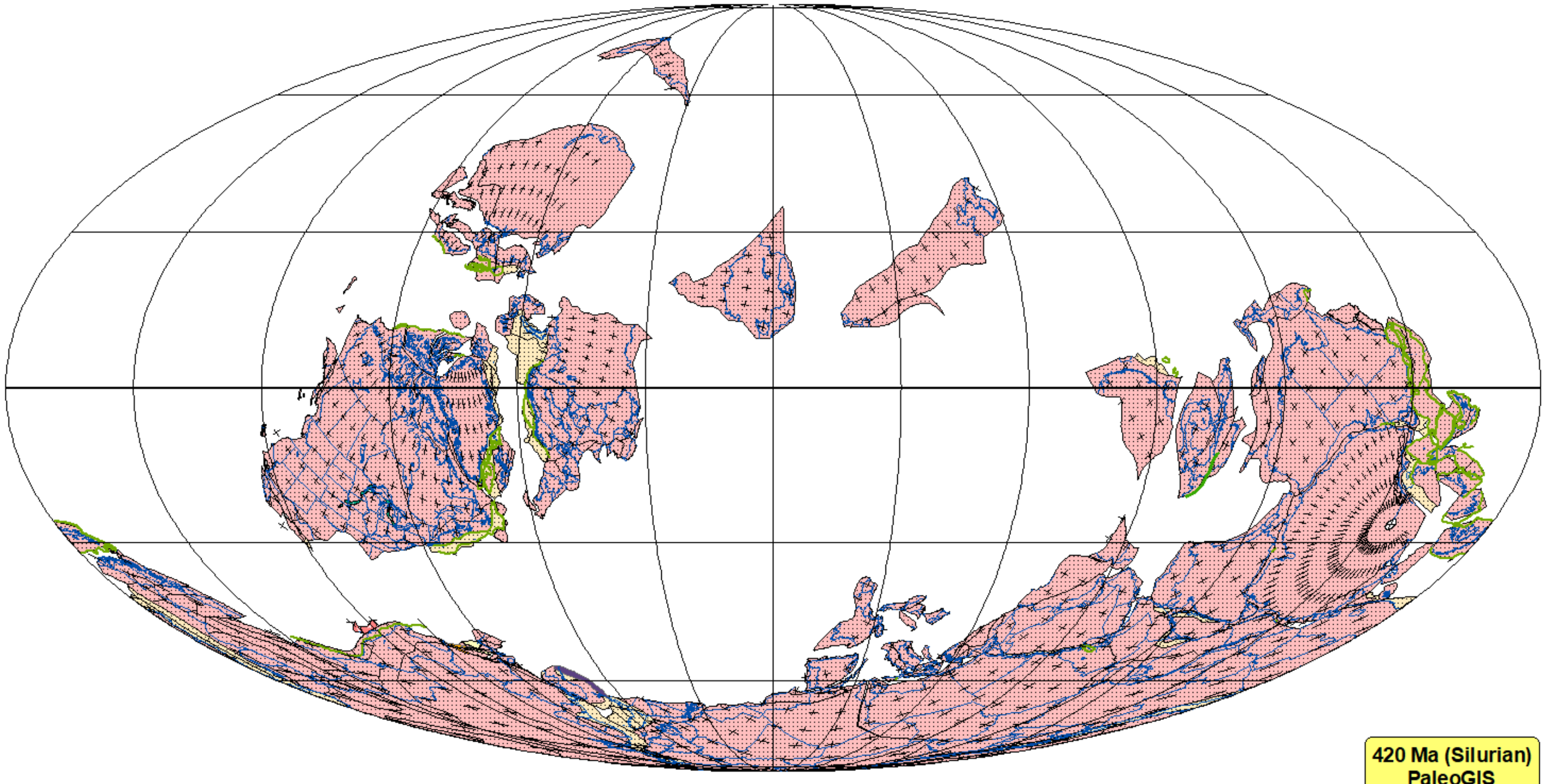
460 Ma (Middle Ordovician)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



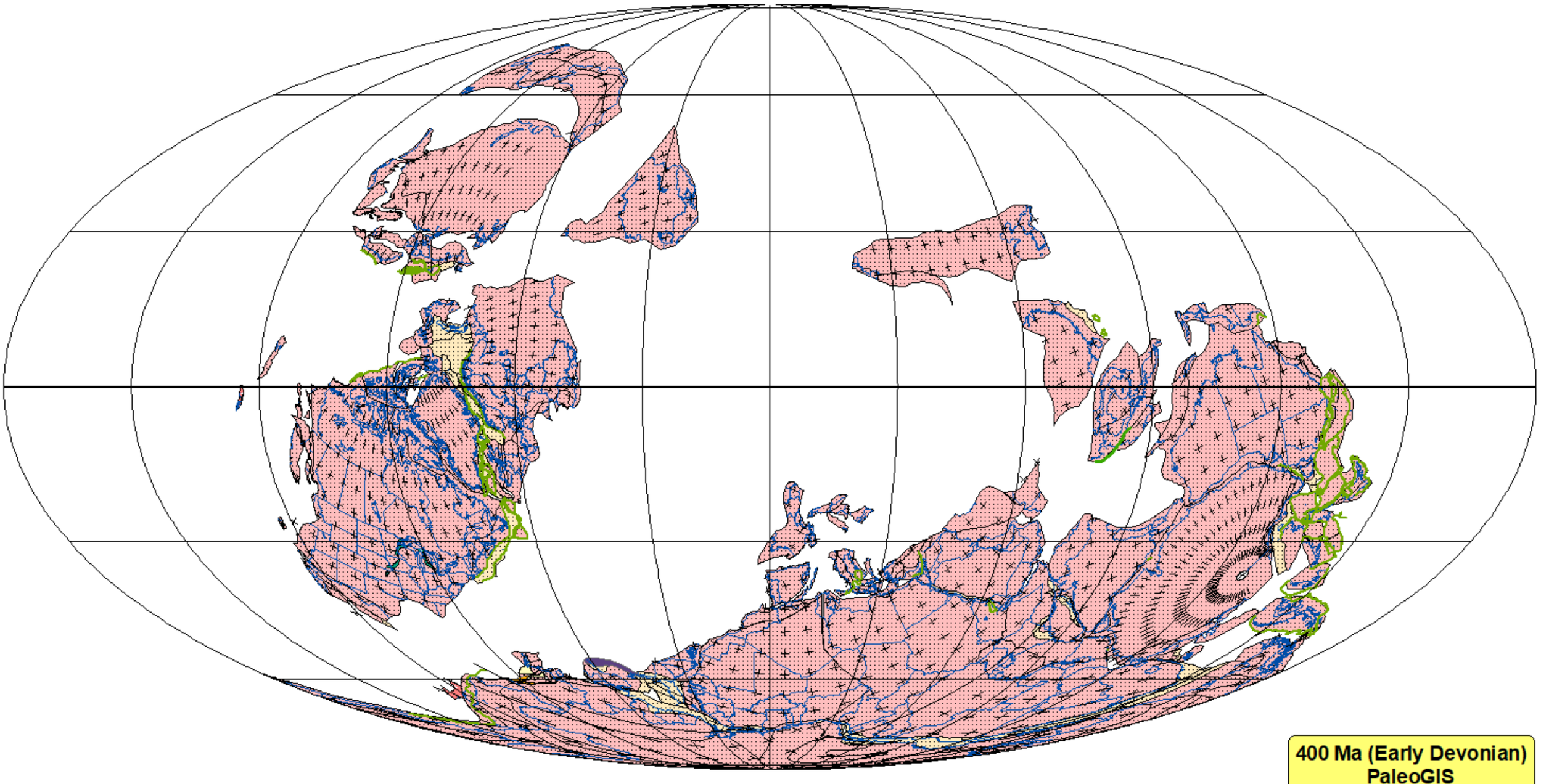
440 Ma (Silurian)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



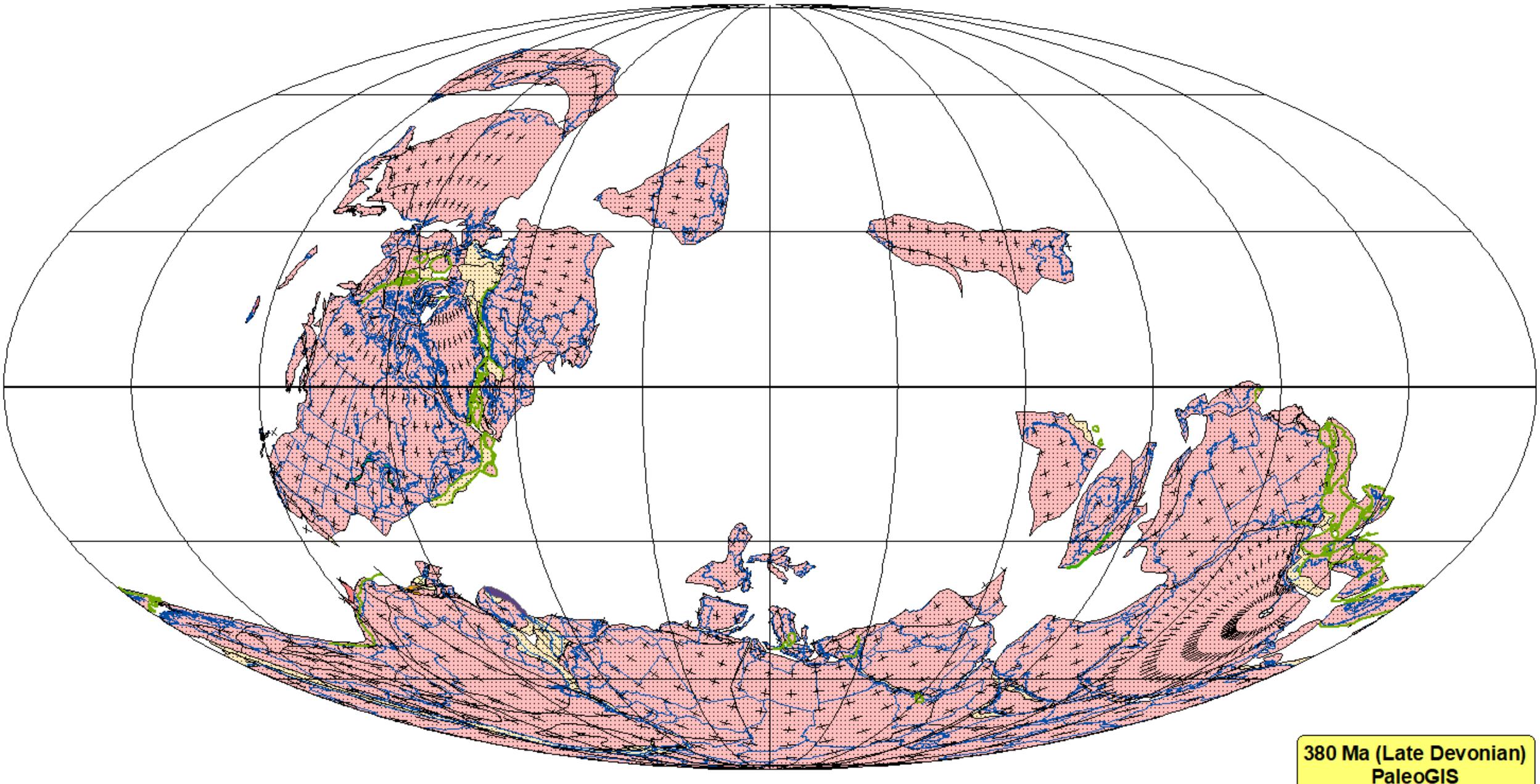
420 Ma (Silurian)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



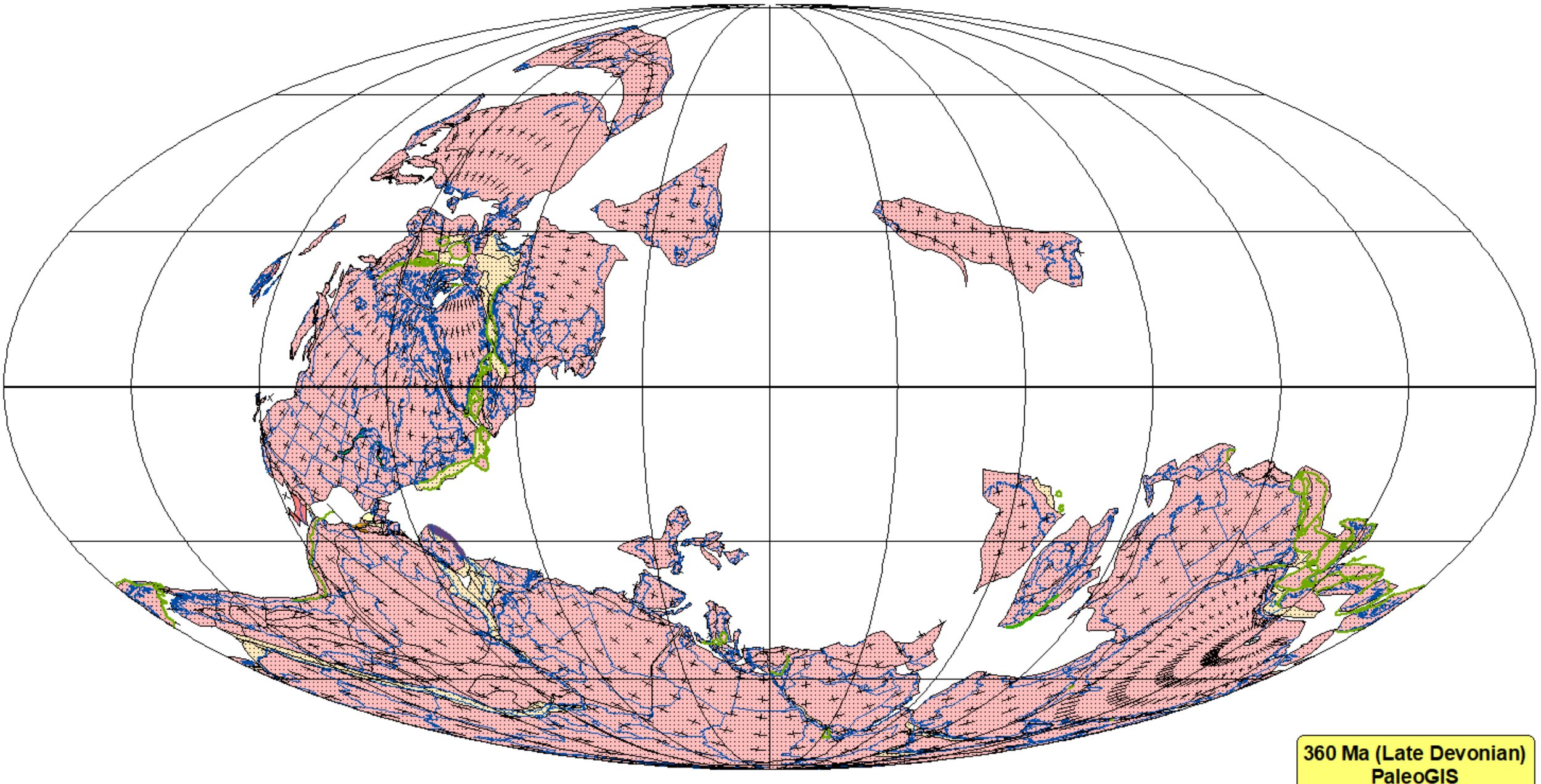
400 Ma (Early Devonian)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



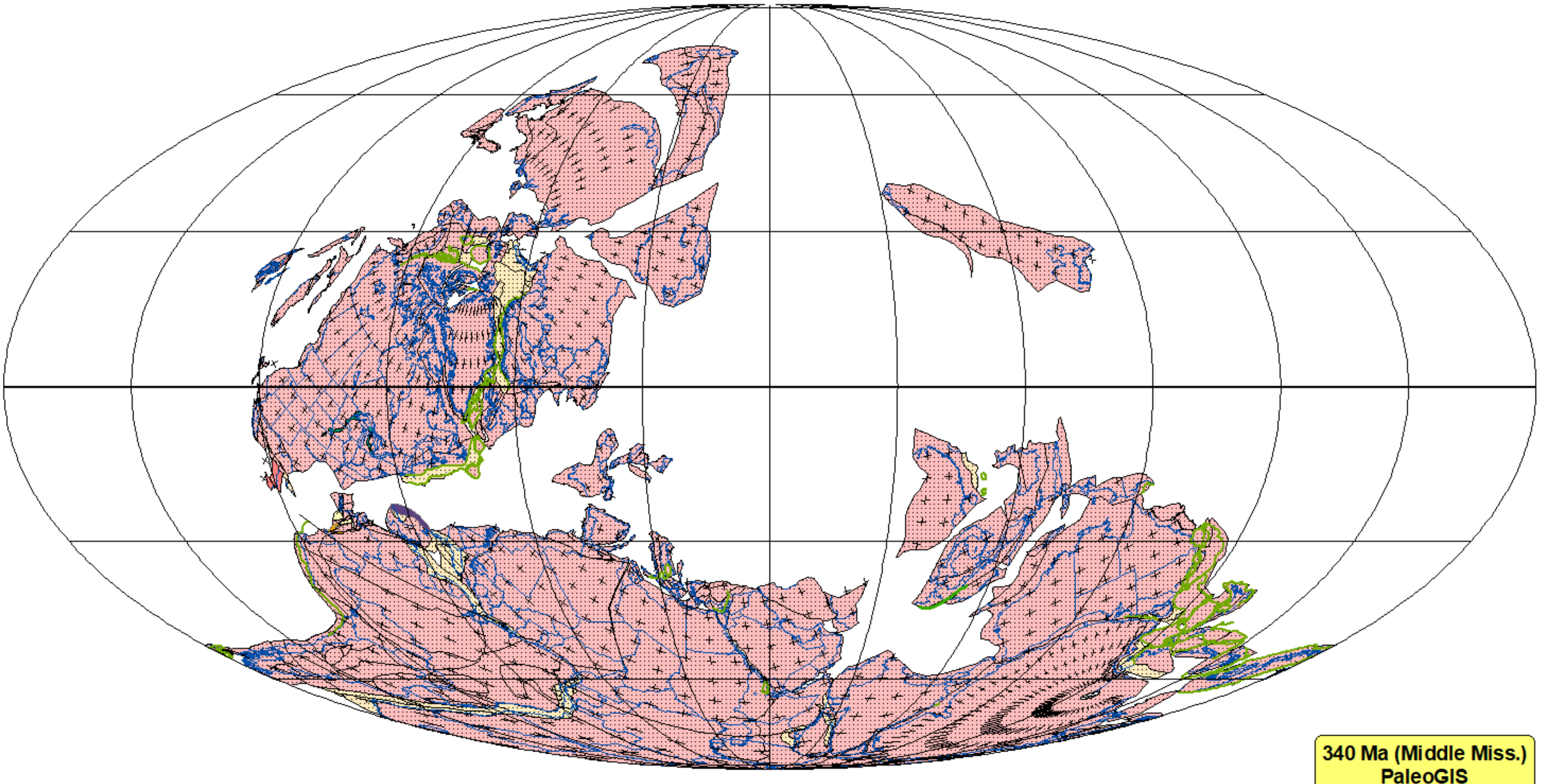
380 Ma (Late Devonian)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



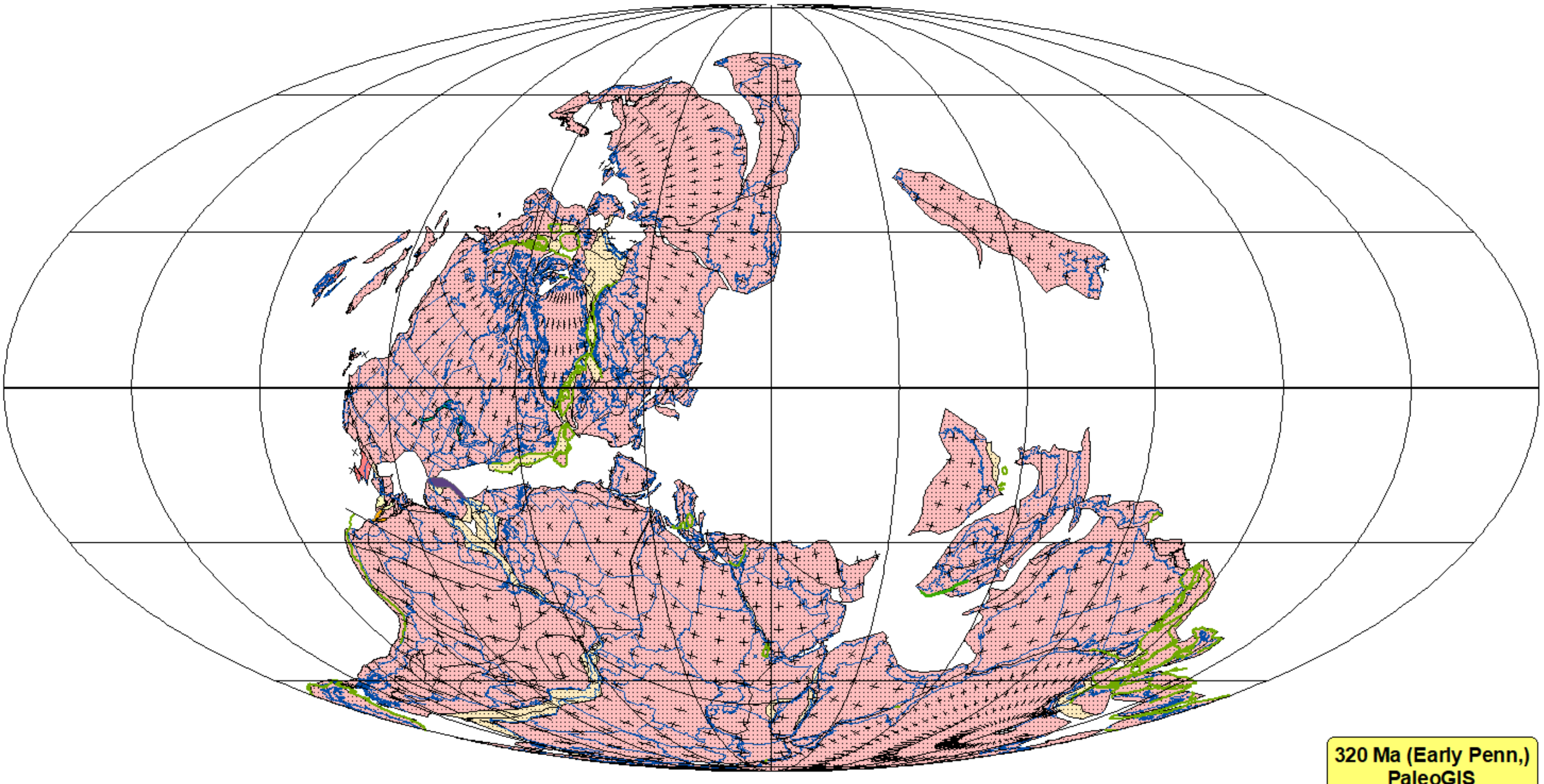
360 Ma (Late Devonian)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



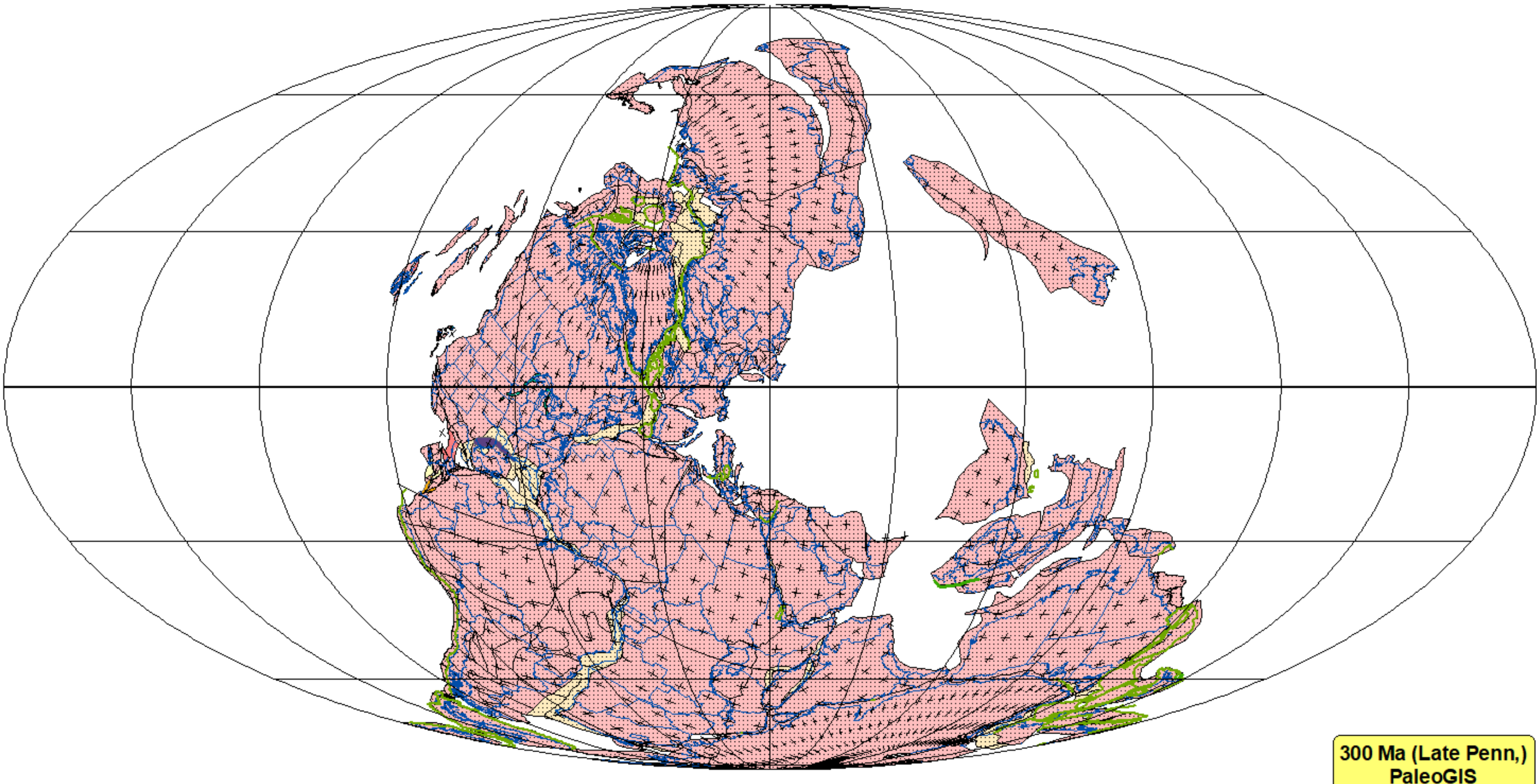
340 Ma (Middle Miss.)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



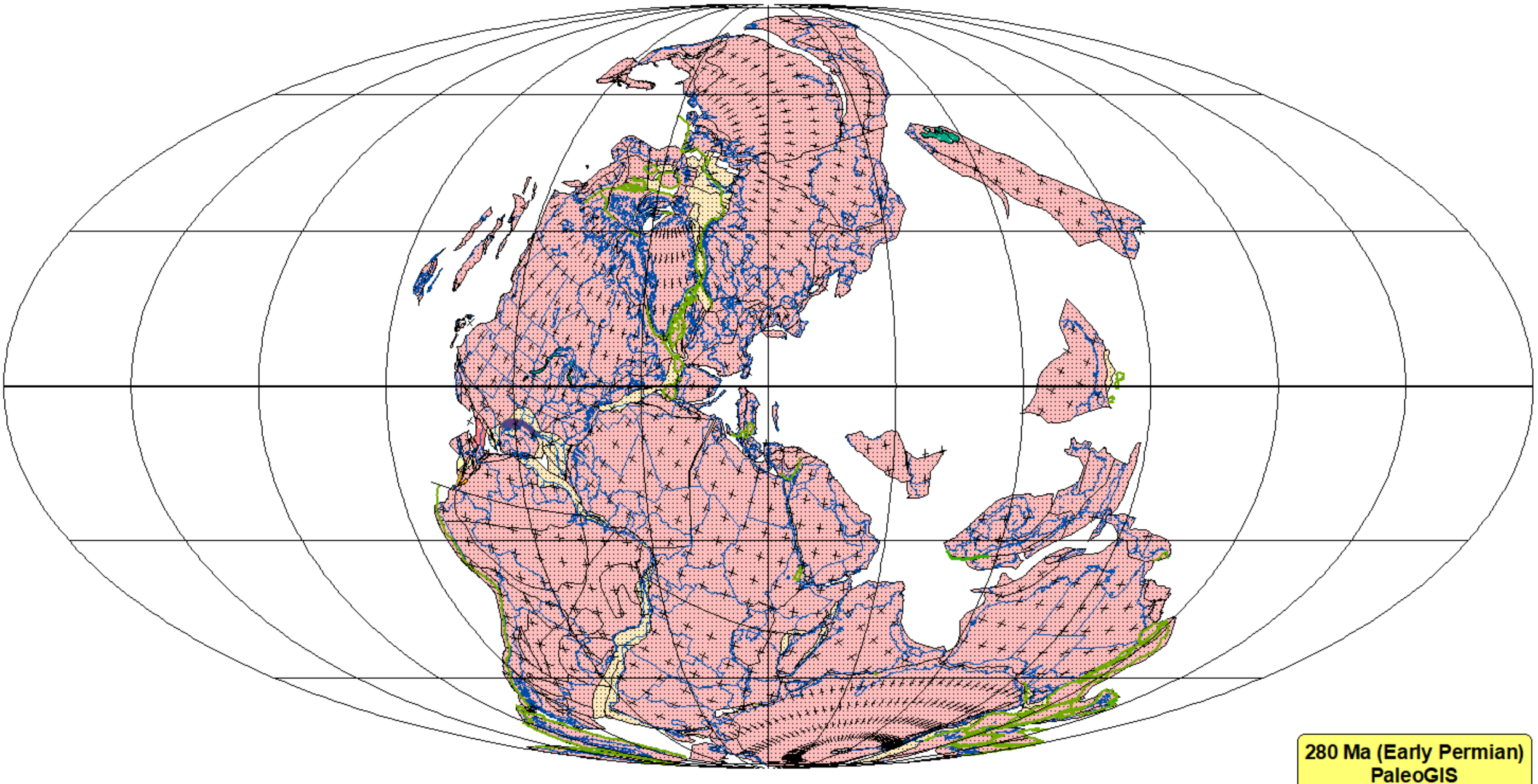
320 Ma (Early Penn,)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



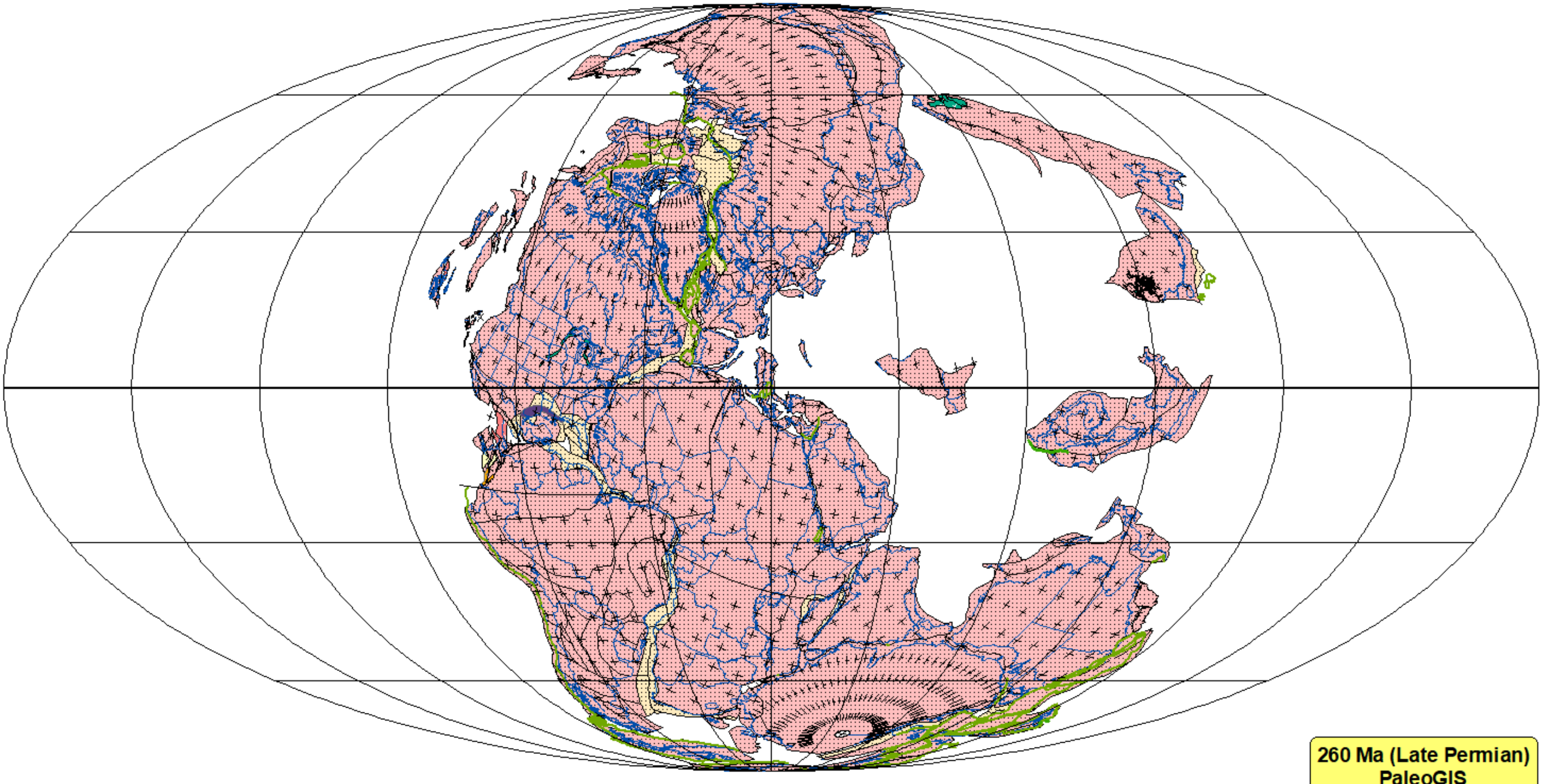
300 Ma (Late Penn,)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



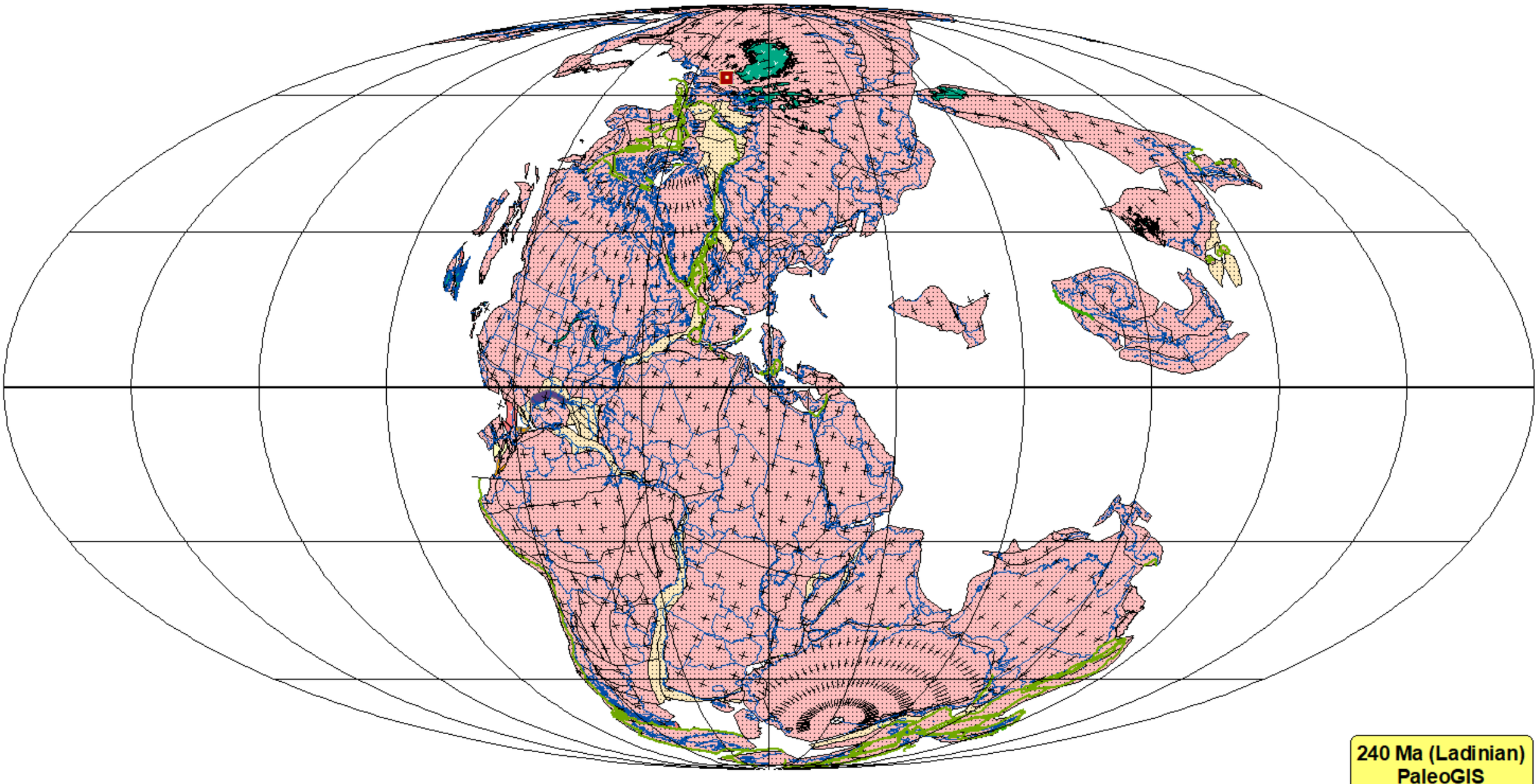
280 Ma (Early Permian)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



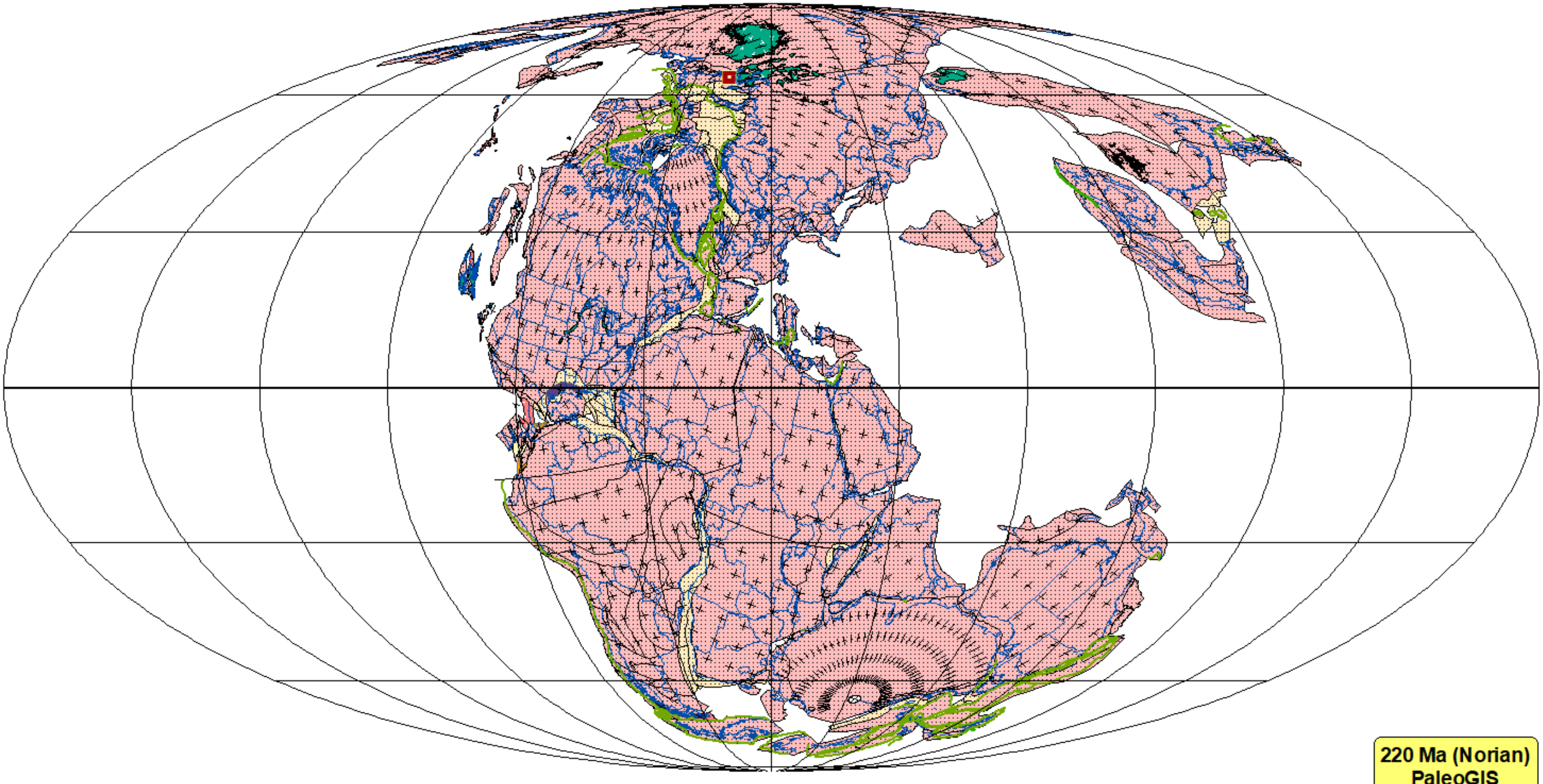
260 Ma (Late Permian)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



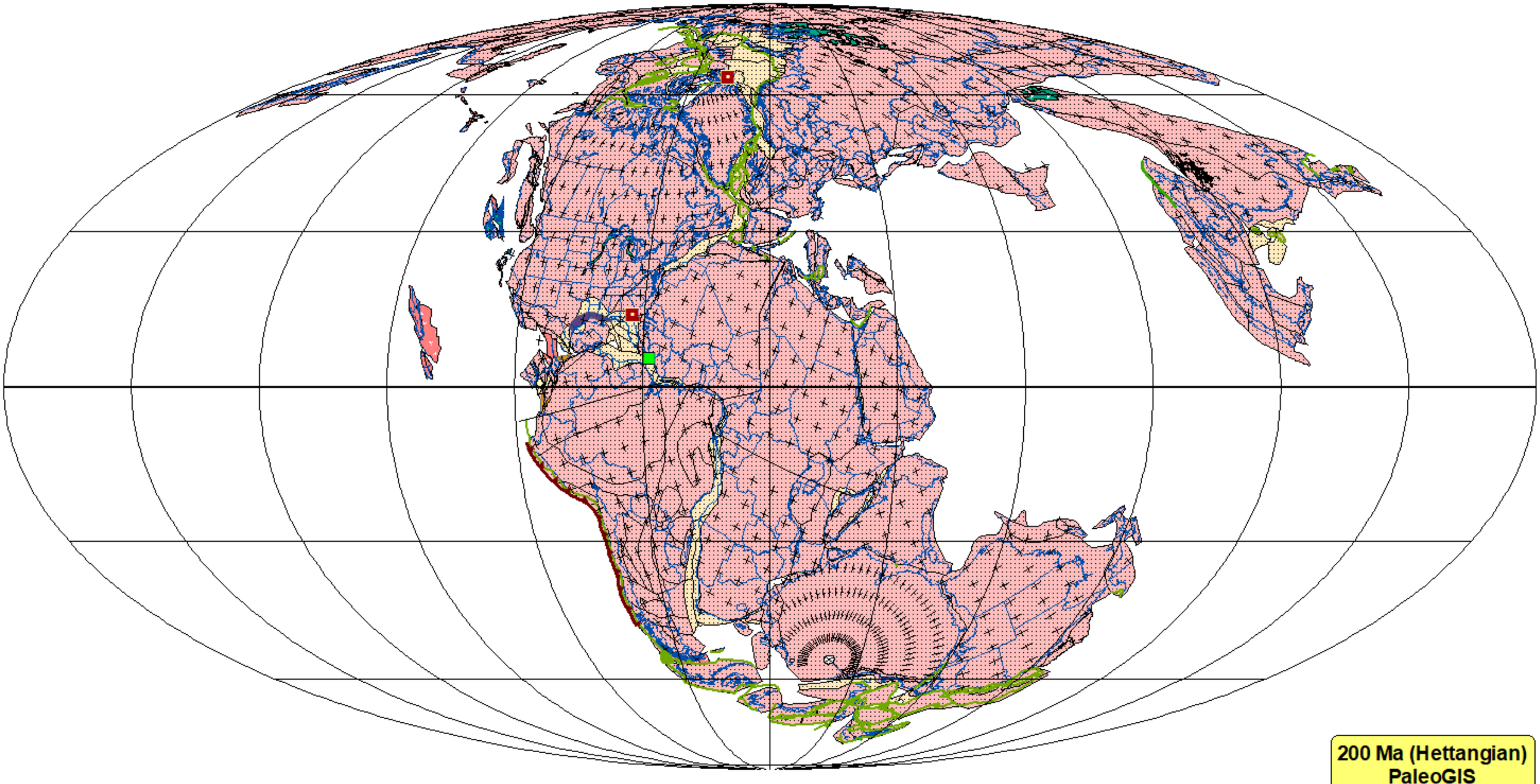
240 Ma (Ladinian)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



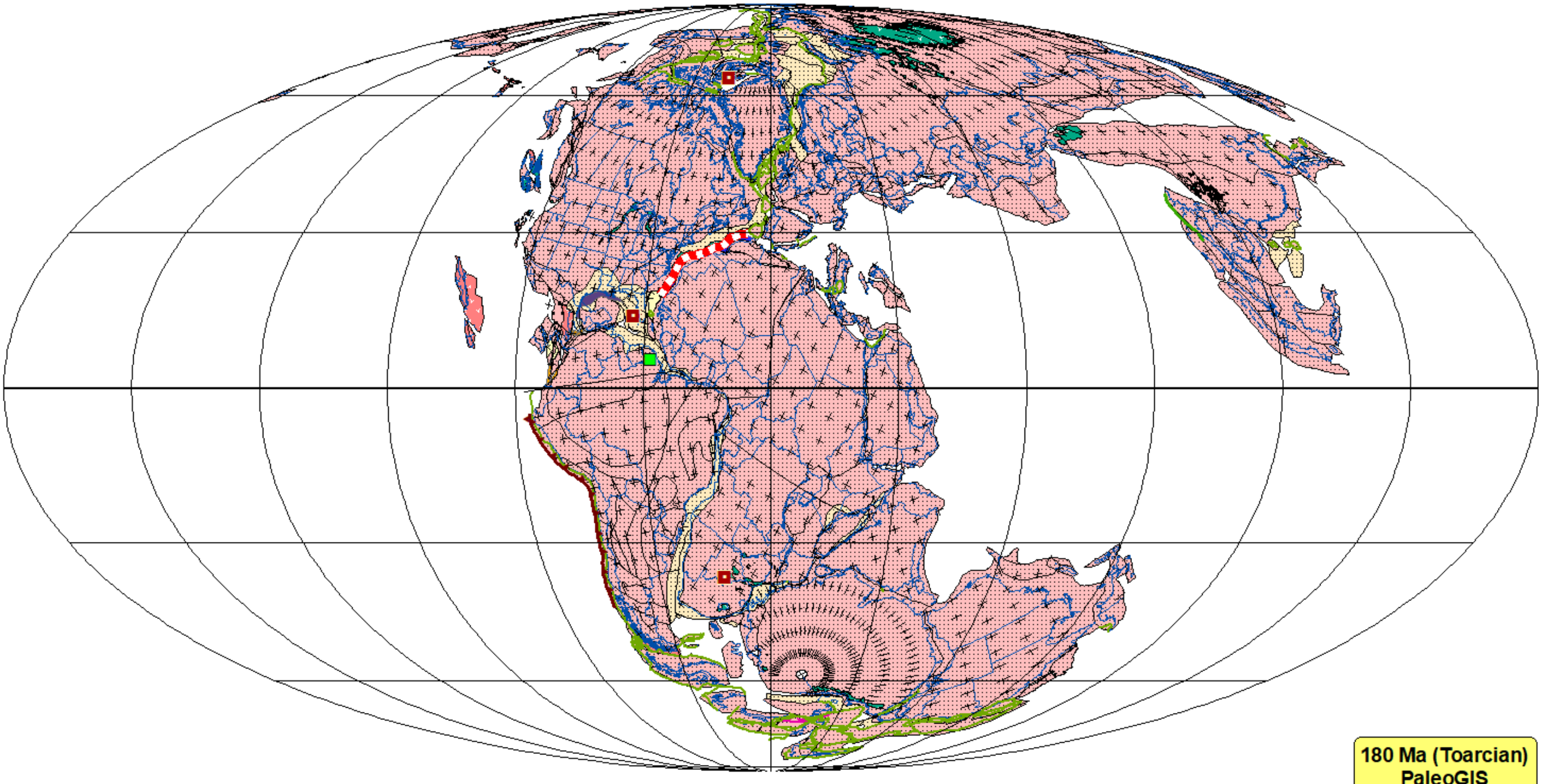
220 Ma (Norian)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



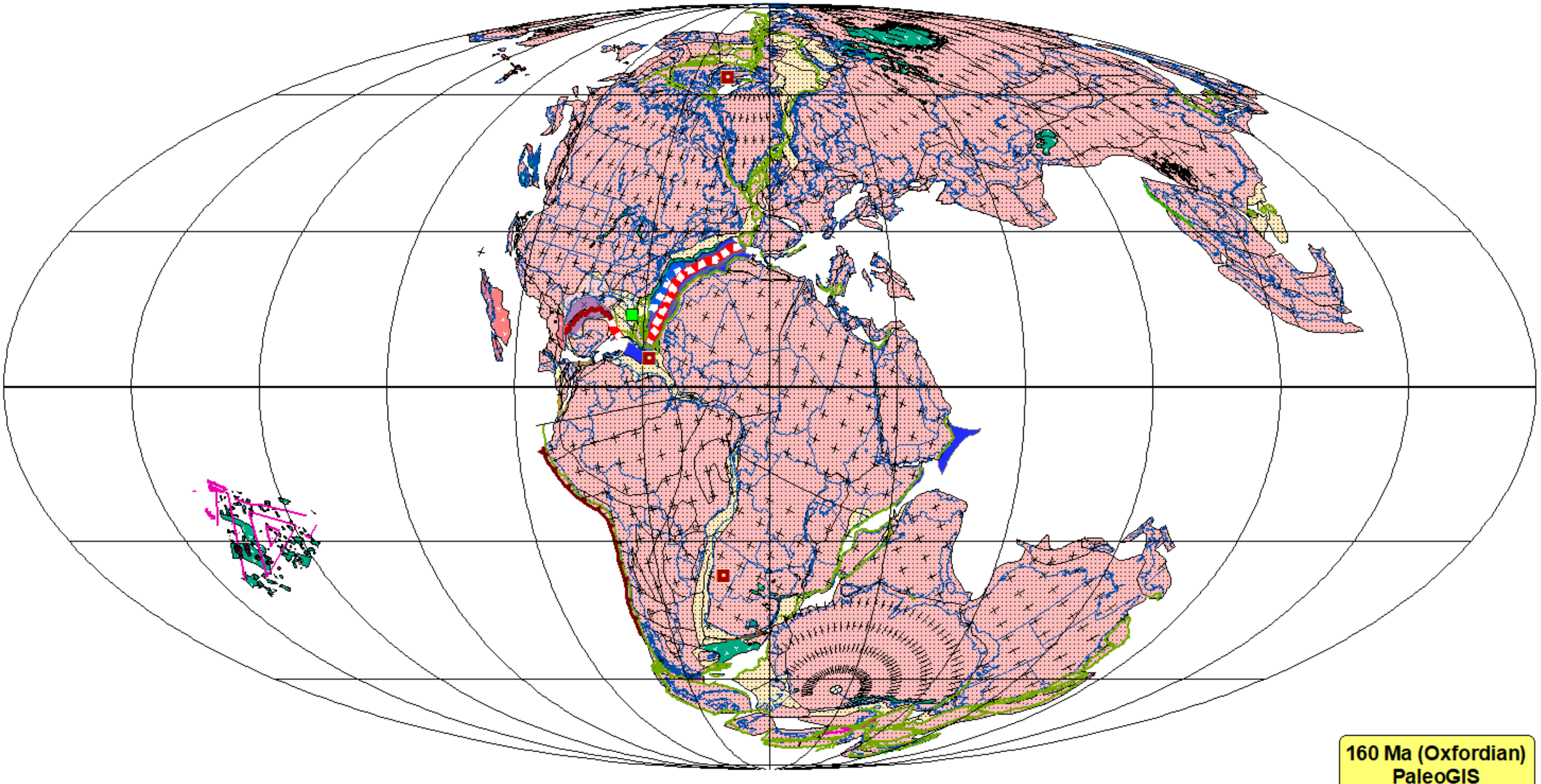
200 Ma (Hettangian)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



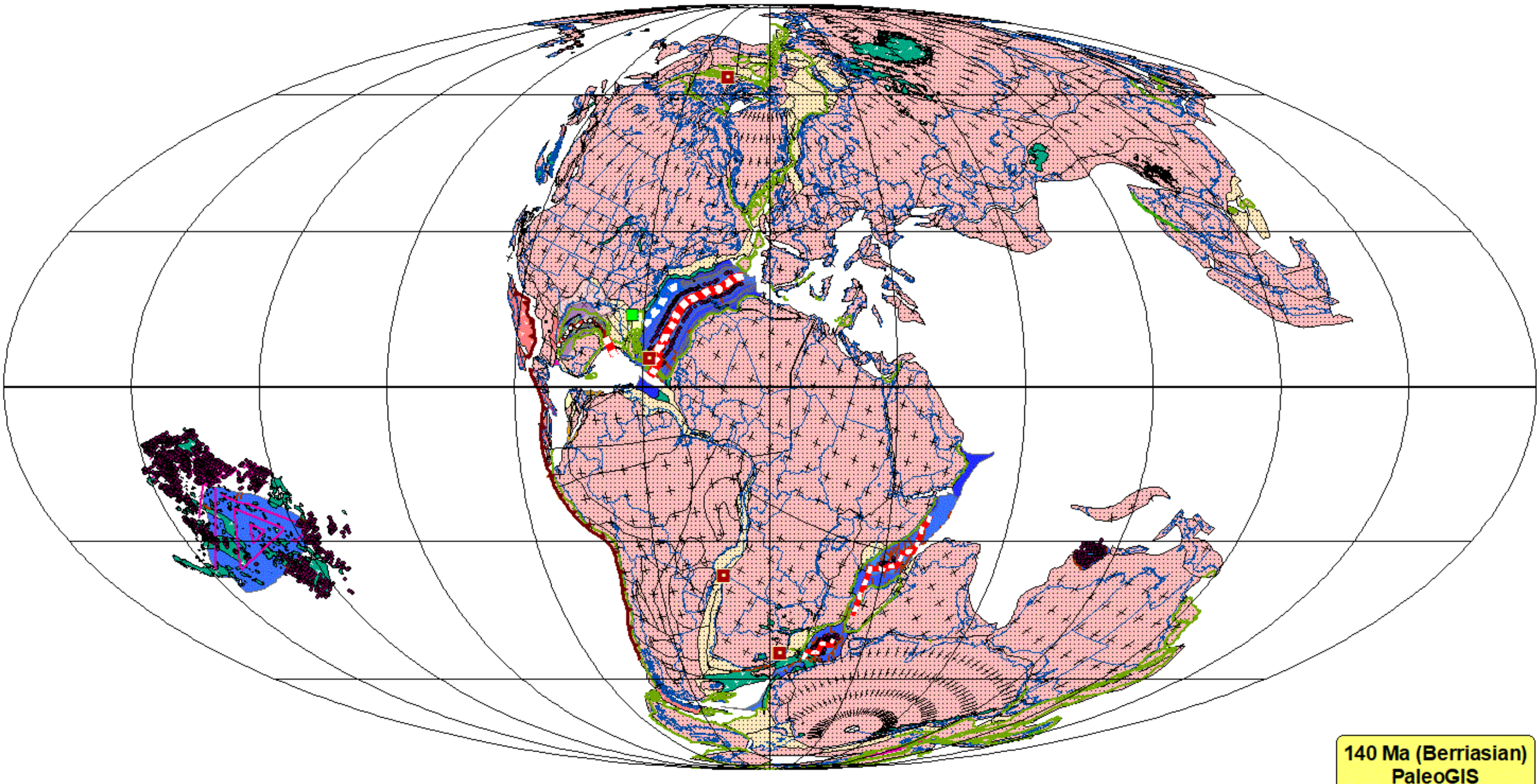
180 Ma (Toarcian)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



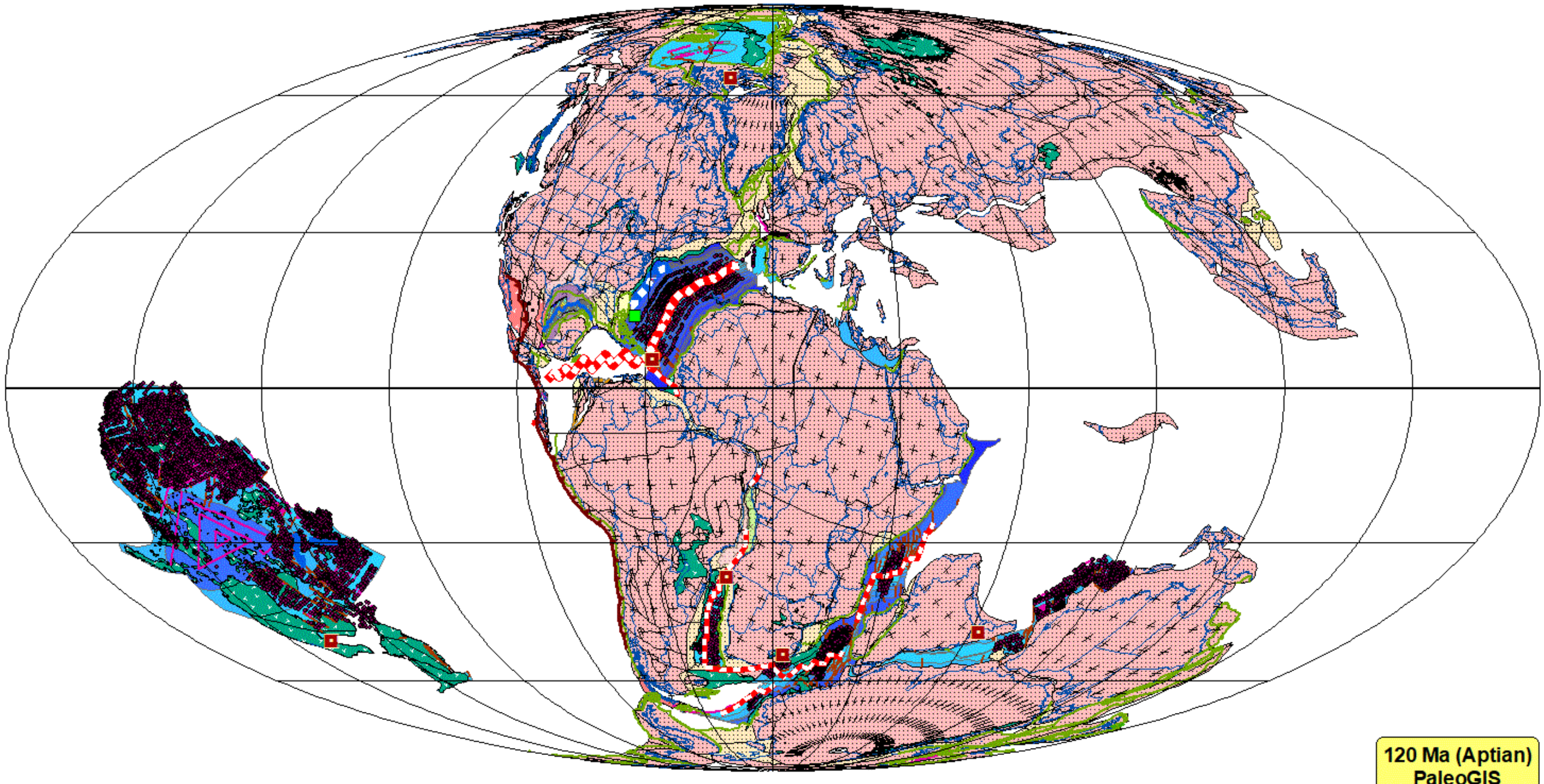
160 Ma (Oxfordian)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



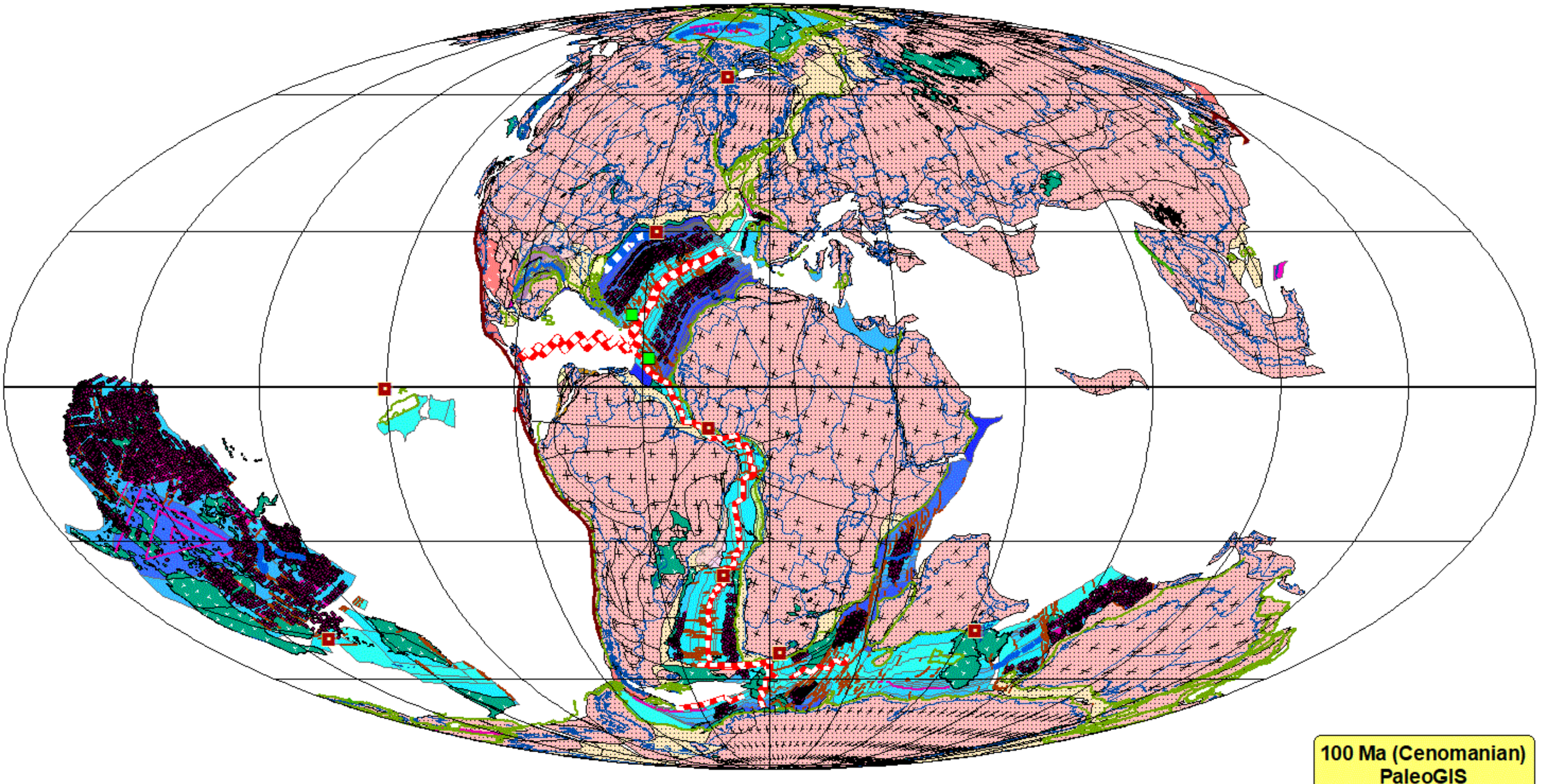
140 Ma (Berriasian)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



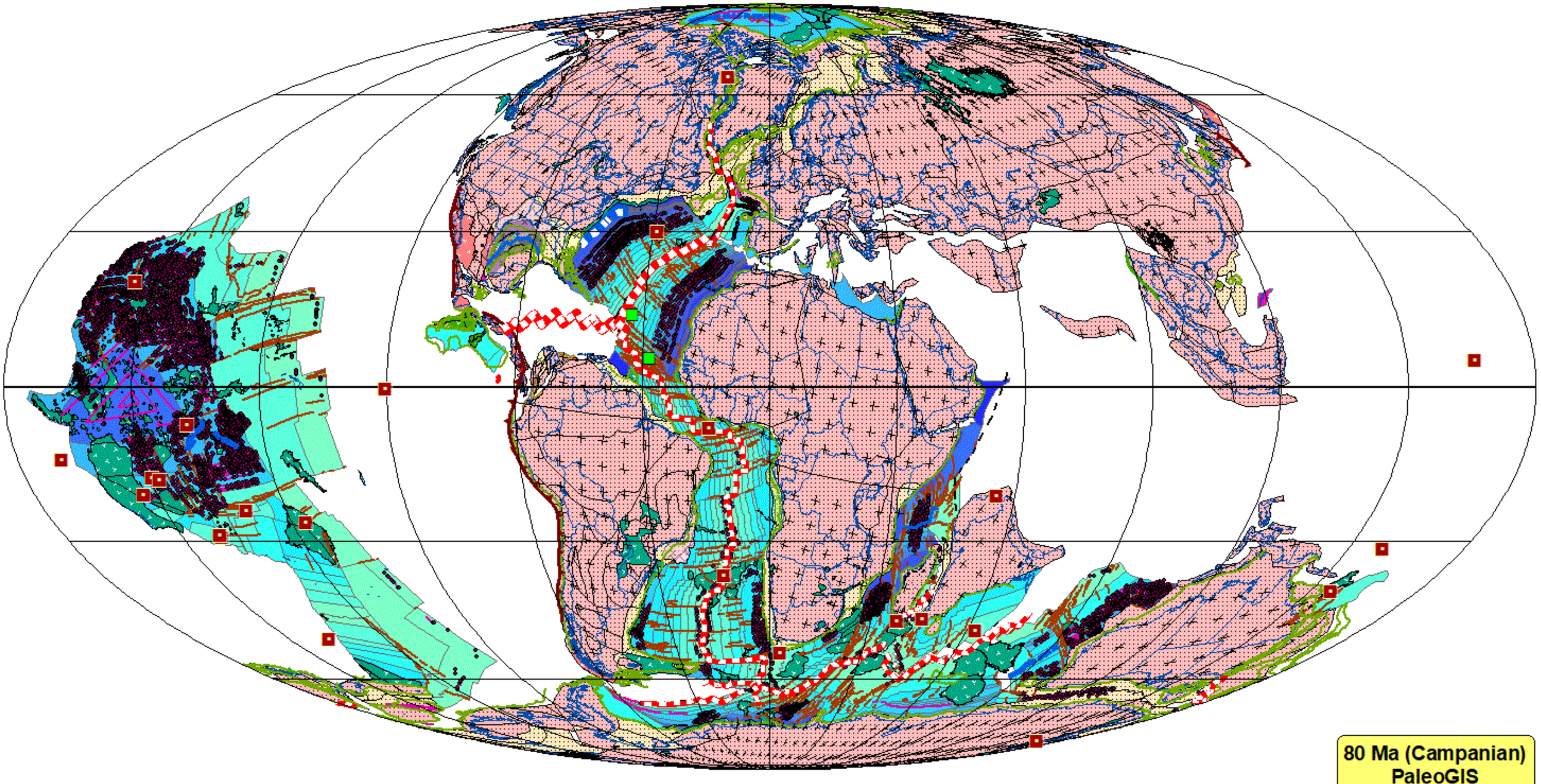
120 Ma (Aptian)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



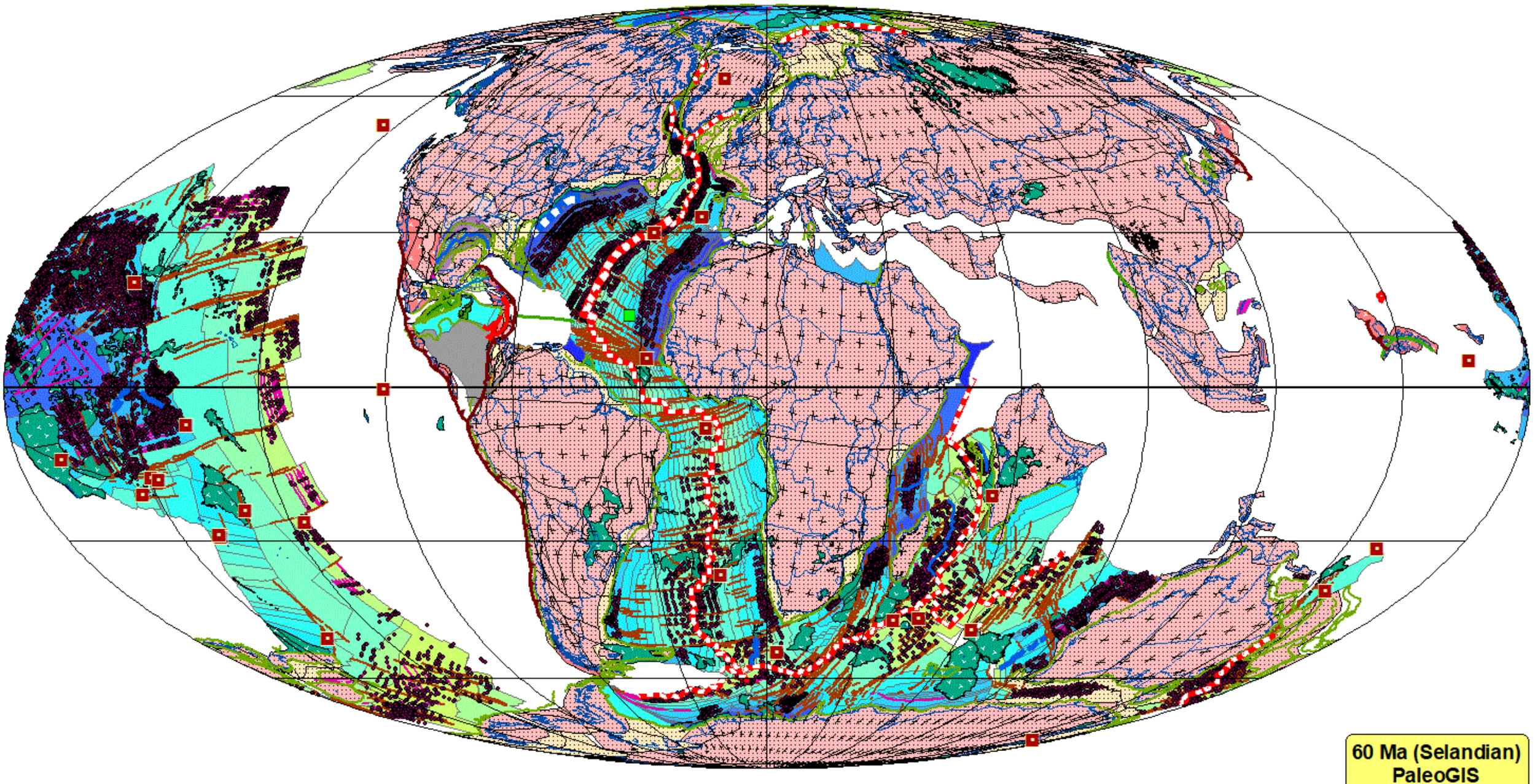
100 Ma (Cenomanian)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



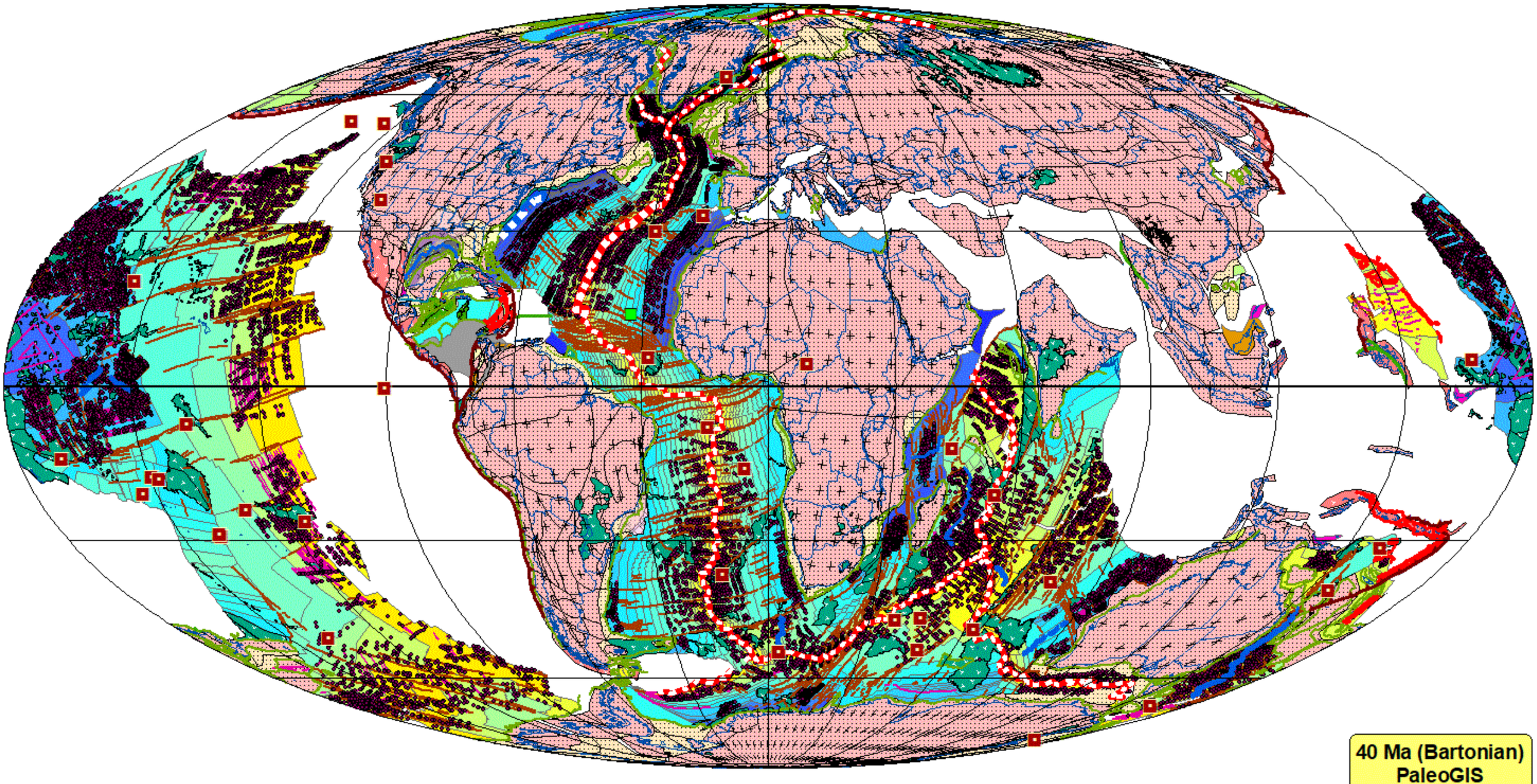
80 Ma (Campanian)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



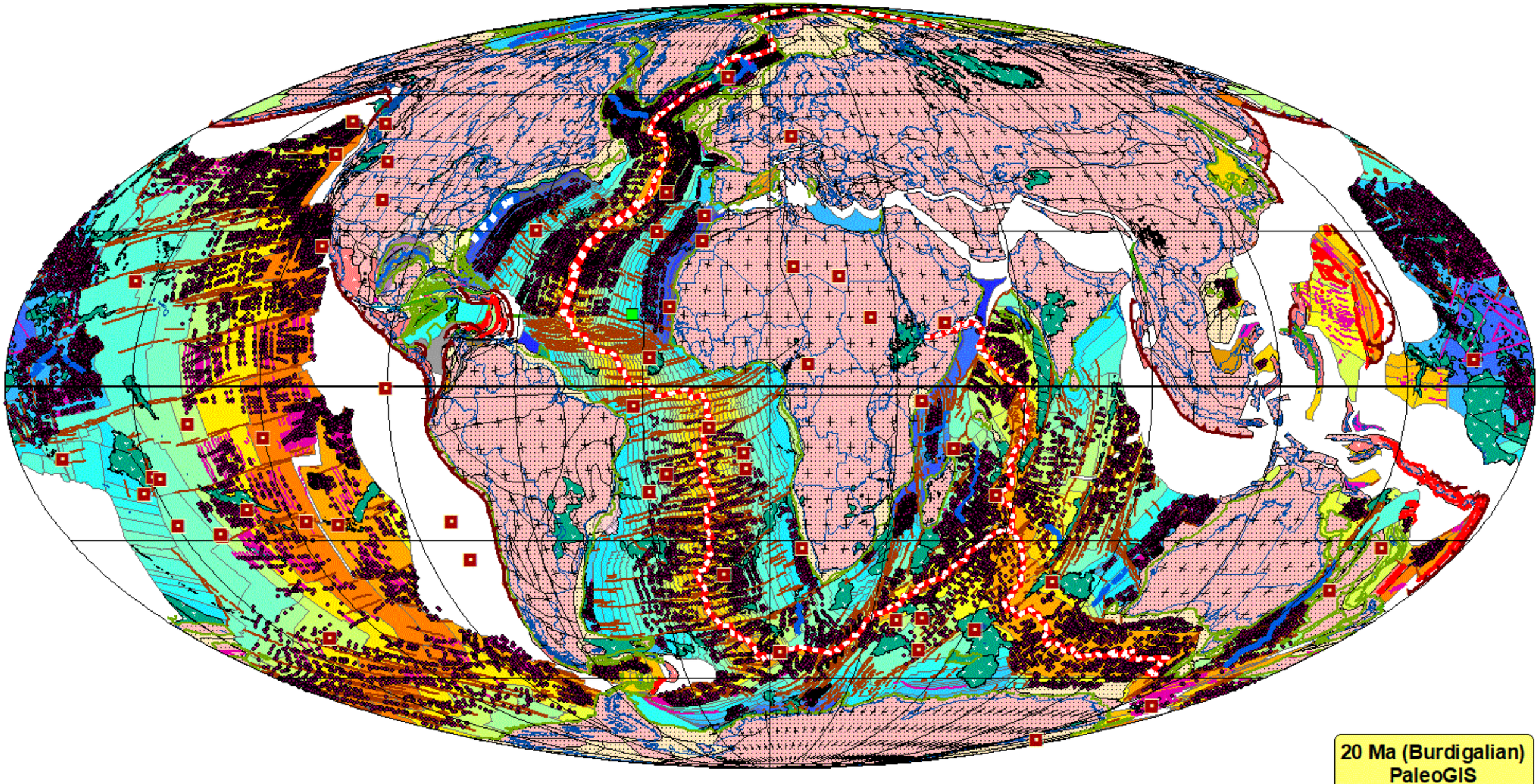
60 Ma (Selandian)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



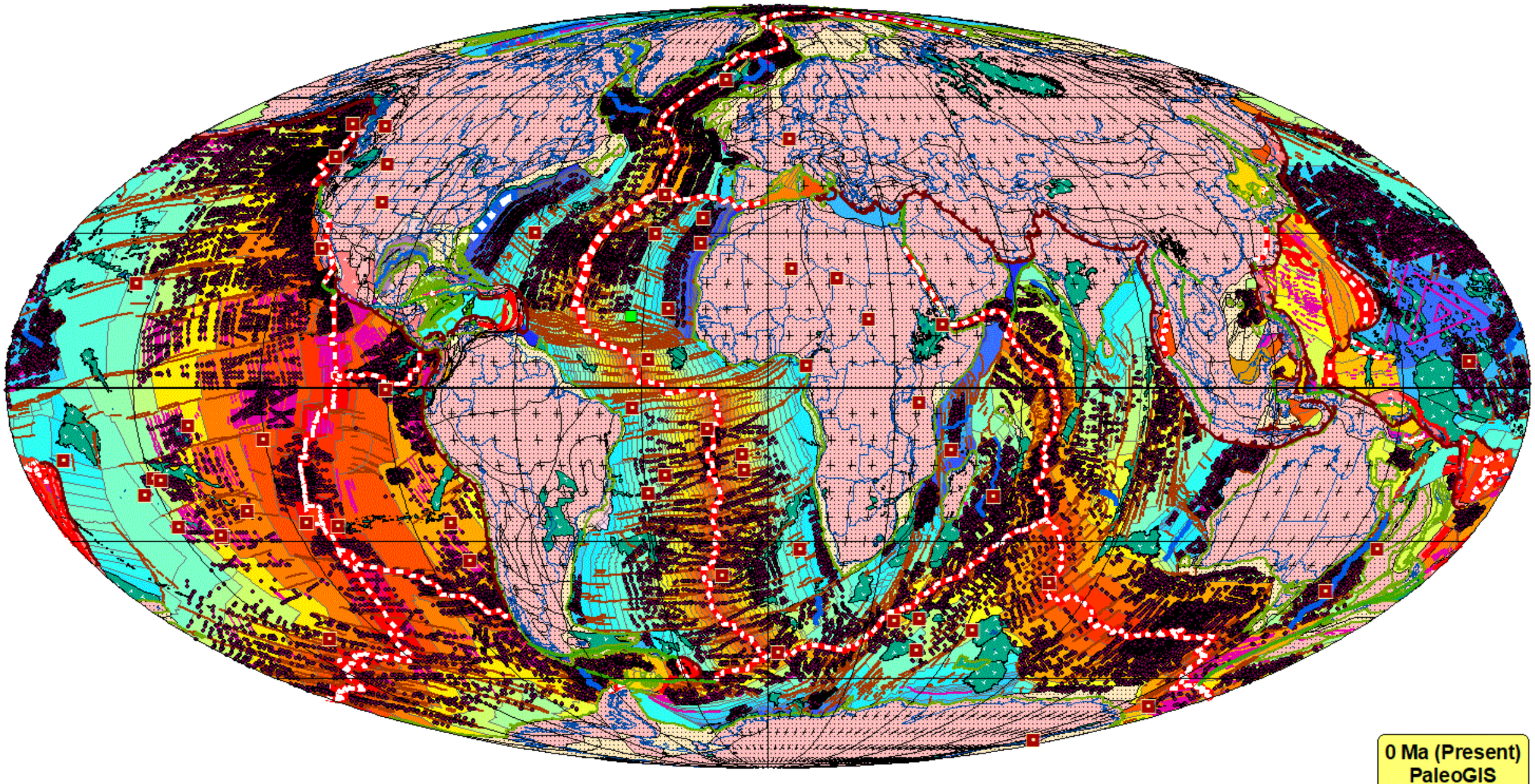
40 Ma (Bartonian)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



20 Ma (Burdigalian)
PaleoGIS

PLATES Project, UTIG, Atlas 2020



0 Ma (Present)
PaleoGIS

Plates_Oceanic_Dec2020

Appearance

- 1.000000 - 2.000000
- 2.000001 - 6.000000
- 6.000001 - 12.000000
- 12.000001 - 16.300000
- 16.300001 - 21.000000
- 21.000001 - 23.000000
- 23.000001 - 27.000000
- 27.000001 - 32.000000
- 32.000001 - 35.700000
- 35.700001 - 41.000000
- 41.000001 - 45.000000
- 45.000001 - 52.000000
- 52.000001 - 57.000000
- 57.000001 - 62.000000
- 62.000001 - 67.000000
- 67.000001 - 72.000000
- 72.000001 - 75.000000
- 75.000001 - 86.000000
- 86.000001 - 97.000000
- 97.000001 - 106.000000
- 106.000001 - 115.000000
- 115.000001 - 125.800000
- 125.800001 - 135.000000
- 135.000001 - 143.000000
- 143.000001 - 146.220000
- 146.220001 - 155.000000
- 155.000001 - 163.000000
- 163.000001 - 173.000000
- 173.000001 - 185.000000
- 185.000001 - 250.000000

Activity (Hotspots)

- Active
- Inactive

Plate_bounds_Dec2020

- <all other values>

TYPE

- LS Left slip
- R0 Extinct Ridge
- RI Ridge
- RS Right slip
- SS Strike slip
- SU Subduction
- LIPS_all_Dec2020

Plates_Dec2020

- <all other values>

Crust_Code

- Accretion
- Basin
- Blank
- Caribbean LIP
- Cont Arc
- Continental
- FoldBelt
- Intrusive Oceanic
- Inv Basin
- Island Arc
- LIP
- Melange
- Oceanic
- Ophiolite
- Transitional
- Unknown
- Blake_Plateau_def