

## The Texas Native Plant Art Exhibition 2016

The Texas Native Plant Art Exhibition 2016 is underway. Fourteen elementary schools are participating! The students are creating their paintings now and will be completing their work by the end of the month so it can be judged and ready for the first display at the Denton Senior Center in November. The art will continue to be displayed at various sites through next April. The display sites offer many opportunities for the students and their families, teachers and principals, and the general public to view the exhibit. The paintings are always impressive and make colorful exhibits.

The Texas Native Plant Art Exhibition began in 2009 in recognition of Texas Native Plant Week, which is the third week in October. McNair Elementary was the pilot school. Beginning in 2010, the art exhibition expanded as a collaborative project sponsored by the Native Plant Society of Texas, the Texas Master Naturalist and Texas Woman's University College of Arts and Sciences.

Over the years, hundreds of fourth grade students have been introduced to native plants through their artwork. Their art teachers are provided with information to share with their students as they work. The purpose of the Texas Native Plant Art Exhibition is to raise awareness of the importance of native plants and educate students about their role in conservation and our natural heritage.

Anyone interested in joining our committee to work on the art exhibition, please contact **Marilyn Blanton, project manager**. [940-464-7775](tel:940-464-7775) or [marilynblanton42@gmail.com](mailto:marilynblanton42@gmail.com)

Photos are from last year's Appreciation Reception. The photos are of art teachers with their proud students.



## —Learning Curve (Features)—

From *w odum*

### SWALLOWTAILS

**B**utterflies are of great interest and curiosity to a Master Naturalist. Swallowtail butterflies are large, colorful butterflies in the family *Papilionidae*, and include over 500 species.

These two examples of Swallowtails show just how different they can be. They are both also of the subfamily of *Papilionidae*.

Zebra swallowtail, Jonathan Reynolds



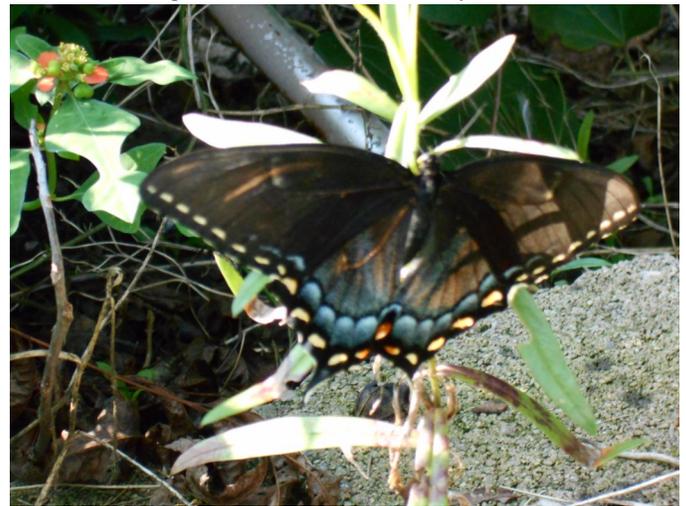
**Zebra Swallowtail (*Eurytides marcellus*)**

It is easy to see that this butterfly resembles a long-tailed kite when you look closely at the shape on the rear. There are red stripes on the hind wings that are surrounded by yellow and black. They prefer swampy areas to breed and lay their eggs but like open fields and brushy areas to feed on nectar.

Their proboscis is much shorter as compared to other swallowtails so are attracted to blooms that are shorter and flatter rather than long tubed shaped flowers.

**For more information go to:** [www.gardenswithwings.com/butterfly/Zebra%20Swallowtail/](http://www.gardenswithwings.com/butterfly/Zebra%20Swallowtail/)

Pipevine swallowtail, Dorothy Thetford



**Pipevine Swallowtail (*Battus philenor*)**

The Pipevine Swallowtail can be a difficult butterfly to identify, because there are several other butterflies with the same size and colors.

Pipevine Swallowtails can have a wingspan up to 3 1/2 inches. They are black with bluish-green metallic color on the hind wings. Females have a row of yellowish-white dots, males do not. When a Pipevine Swallowtail folds its wings while it's resting, you will see a curved row of bright orange dots underneath its wings.

Pipevine Swallowtails are found in fields, meadows, gardens, parks, open woods, roadsides, and streamsides.

These butterflies fly from April until early Fall.

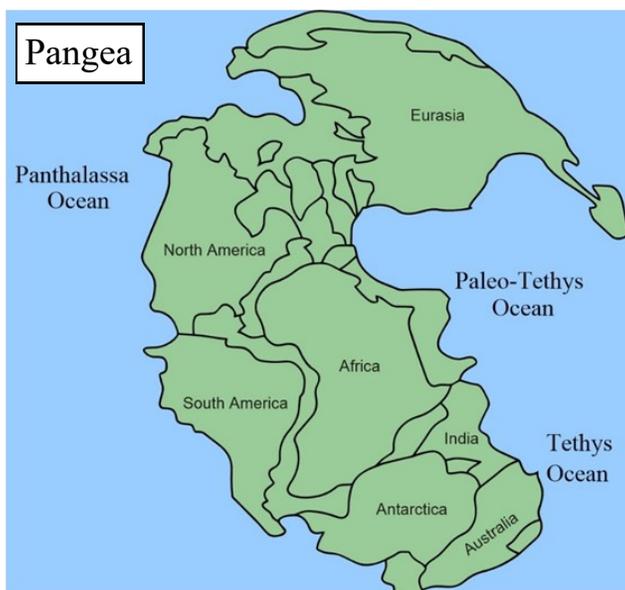
**For more information go to:**

[http://www2.fcps.edu/islandcreekes/ecology/pipevine\\_swallowtail.htm](http://www2.fcps.edu/islandcreekes/ecology/pipevine_swallowtail.htm)

## The Supercontinent Cycle, one of the things we'll spend a few minutes on in November

From Scott Kiestler

Ever want to go someplace and get out for a really long walk? Well we missed out on the chance, born to late. 250 million years ago you could have walked from the South Pole to the North Pole with only canoe portages of the rivers in between.

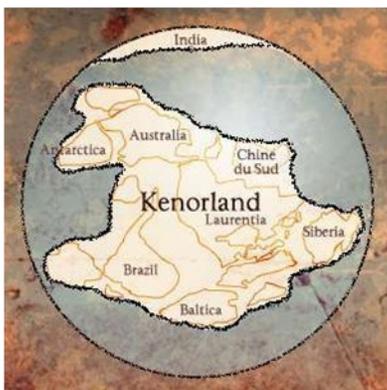
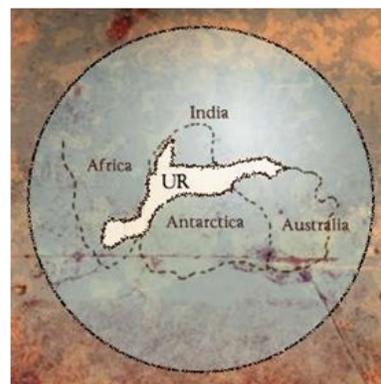


That place is called Pangea and it is the most recent time that all of the earth's landmasses cozied up together in what is known as a supercontinent.

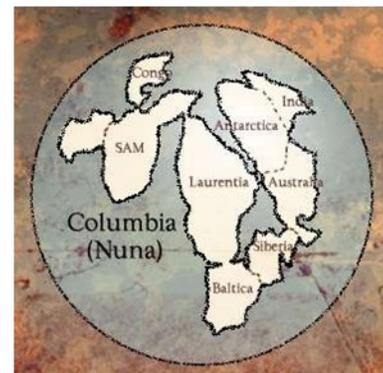
This happens every few hundred million years courtesy of plate tectonics. The annoying habit of the earth's surface not to stay put for very long. You may have seen on the internet a bit ago about how on January 1<sup>st</sup> Australia's latitudes and longitudes are being adjusted to account for it moving north about 2 inches every year. So come 2017 everything in Australia will be corrected for about 5.9 feet of northward drift since the last official reckoning.

As I said this is a cycle, so what came before Pangea?

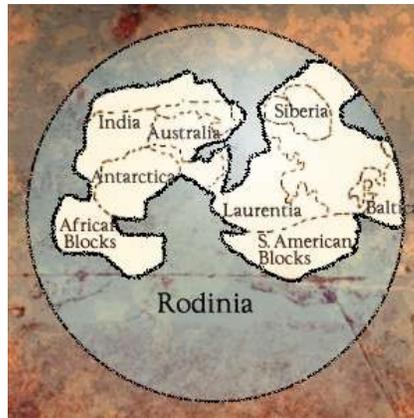
Likely the first continent sized landmass that can be definitely agreed on is called Ur, smaller than present day Australia and around 3 billion years old. Wanna stand on it? There are bits and bobs at the surface in India, Western Australia and southern Africa. That was probably most of the dry ground that was in existence at the time. There are plenty of rocks and even fossils older than 3 billion years, scattered all over the globe, but Ur was the first large landmass. Throughout the Earth's history the size of landmasses has continued to increase just as it does today on Surtsey Island off the coast of Iceland.



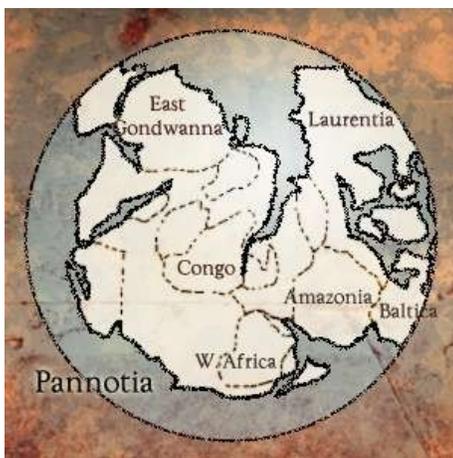
Then comes Kenorland about 2.7 billion years ago. Mostly buried today, it included parts of the modern continents. Next up at about 1.6 billion years, is Columbia also called Nuna which included the ancient cratons, or cores, of all of today's continents. Some researchers call it the first "true" supercontinent because it included all the existing landmasses.



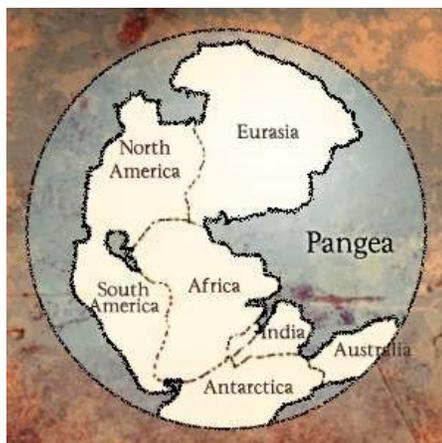
Now, Rodinia, the “motherland” a little less than a billion years ago. First proposed in the 1970’s based on the similar ages and lithologies of rocks found in world it was given the name by research- the first supercontinent to be made up landmasses at something near their cur- shapes.



old mountains around the equator in the late 1980’s. This was of all of the earth’s current size, if not their current shapes.



About 650 million years ago there was another family reunion, Pannotia. This landmass was unique since nearly all of it was below the equator in the southern hemisphere. The map view is centered on the South Pole



Finally we make our way back to Pangea about 250 million years ago.

What happened to get where we are today? The details vary, but the ideas all center around the fact that it gets mighty hot underneath all that rock and eventually the mantle begins to bulge up and push things apart.

The greatest mass extinction event in the Earth’s history, over 90 % of all taxa died out, took place as Pangea was breaking up. The massive volcanic activity occurring as the modern continents pulled away from each other caused the chemistry of the oceans and the atmosphere to become too warm and toxic for all but a tough as nails few. Wanna stand on some of that nasty stuff. You can make a geo-pilgrimage to Northern Russia or Northern India and visit exposures of the Siberian or the Deccan Trappes. Literally millions of cubic miles of molten rock were spewed onto the surface as the crust pulled apart.