



Rocky Mountain Field Trip!

'Reading Between the Lines'

August 2009

The Armchair geographer took a field trip during July – crossing over and below the Nebraska panhandle to the “mile high” city of Denver, Colorado and surrounding vistas. This was a first for me, and I was certainly able to see a great deal of the physical geography.

One of the things I like to do is occasionally get off the interstate and cruise along the state highways; you get to see some of the very best and very worst of real America. My 16-year old twins complain a bit about “*taking longer to get there*”, but some of the side roads offer some interesting sight-seeing, and it does wonders to calm my interstate driving phobia to tool along the less crowded and less driven roads.

I came across Cozad, Nebraska, slightly west of the center of the state (see map, next page) while driving along Nebraska Highway 30. They have a wonderful sign posted over the 100th Meridian (see photo inset, next page), and this got me thinking about boundaries. Most of us deal with very static boundaries in our day-to-day activities; lot lines, city boundaries, school districts that tend to change only slowly and are usually well defined and sometimes marked in the field by survey.

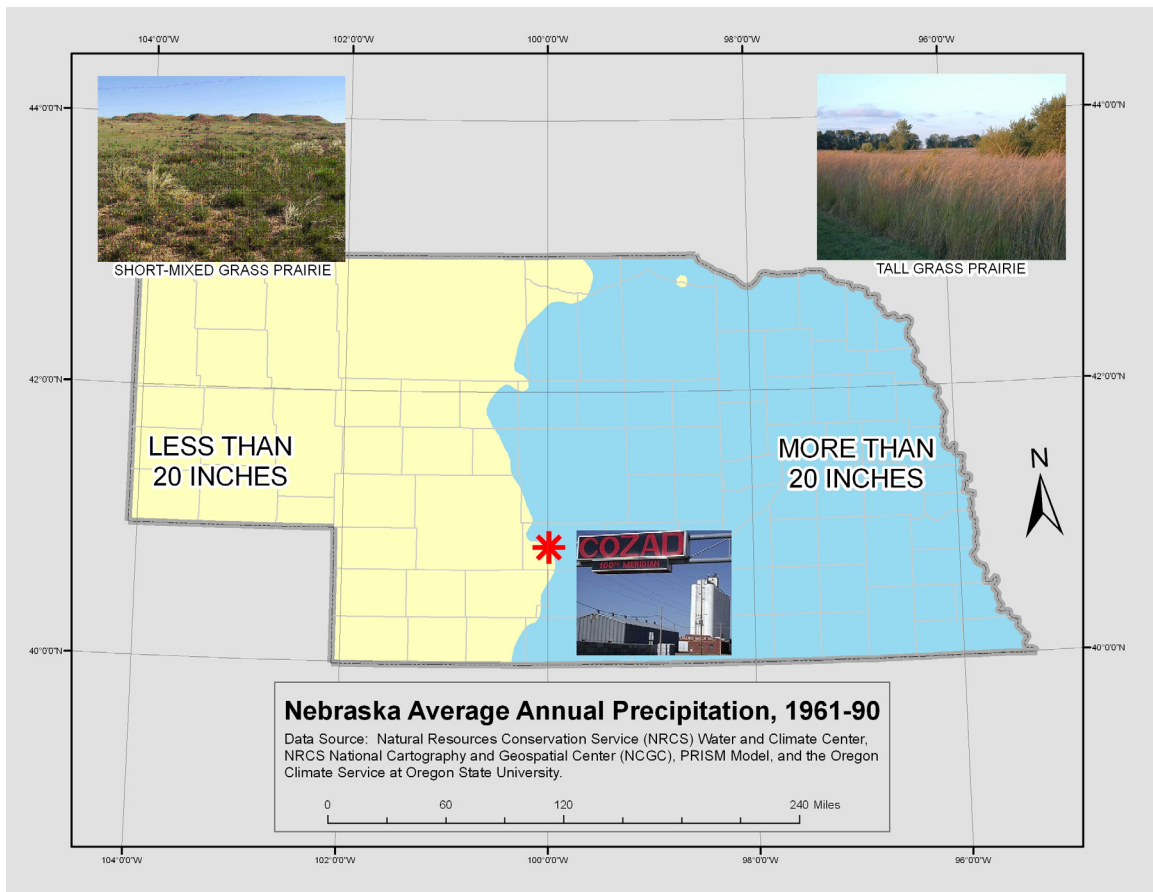
But as geographers, we sometimes recognize other boundaries that are not as well defined or tend to be more dynamic. The 100th Meridian is sometimes cited as a convenient way to convey the change of boundary from the moisture positive to the moisture deficit in terms of evapotranspiration demand. In reality the boundary is quite dynamic and the change of ecosystems is much more gradual. Such a boundary based on climatic variables, of which average precipitation is the most significant, can be identified at the 20” isohyet (see map).

After I mapped the 20” isohyet, I could see the correlation to the 100th Meridian. Although I had used maps and taught about Thornthwaite, Bowen Ratios, and determining potential and actual evapotranspiration, the crossing over from one climatic and ecosystem realm to the other was still a pretty cool experience. As those of you who have taken the similar trip know, a gradual change is not immediately noticeable, but the subtle grade into a drier, less humid environment was an interesting occurrence, none-the-less. In addition, when I finally arrived in Colorado at our destination, I had the opportunity to see ecosystem variation in altitude as we drove above the tree line into the alpine tundra short grass and shrub (Tierra fria) from the montanne boreal coniferous forests of the lower elevations (Tierra templada).

Vacations are a good way to engage teachable moments. Although good fences make good neighbors, some boundaries are so gradual such that a ‘virtual fence’ must be

assumed along certain locations. Conceptualization of a gradual boundary is often difficult to convey (verbally or cartographically) so in order to teach the variation in some meaningful or memorable way we must sometimes rely on ‘cartographic license or shorthand’ such as using 100th Meridian.

As my kids grow older, the complaints about trips have dwindled (if I can coax them to go with us), but “*are we there yet*” is still standard fare that I have to pay.



Armchair Geographer in Cozad



Tree line on Pikes Peak