
Identifying a Plant Community

by: Jim Blackburn

WHAT'S IT LIKE TO LIVE IN A 1,154.121 PLANT COMMUNITY?

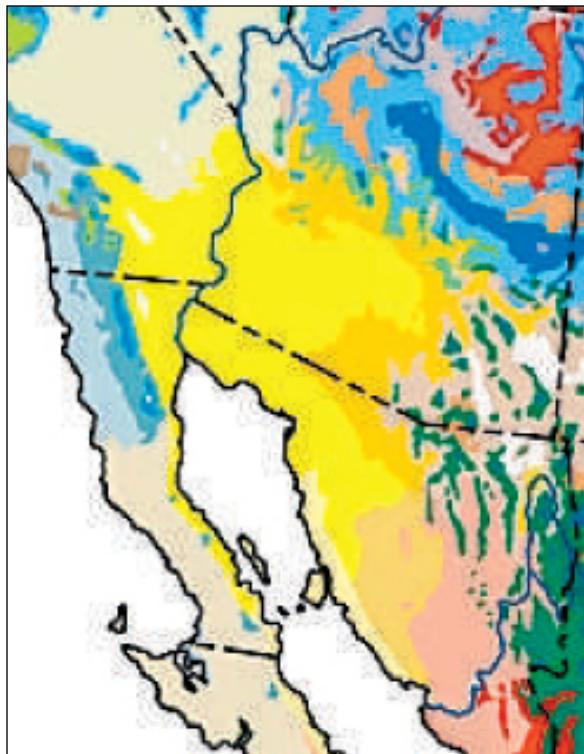
How does a botanist identify a particular plant community? Did you know botanists have a digital scheme to identify all the different plant places on land around the world and are now working on a similar scheme to identify all the plant places in the oceans? Around my house here in Cave Creek I live in a 1,154.121. Let me explain.

The first digit 1, is the Biogeographic (Continental) Realm. I am in North America (Nearctic in their nomenclature), whereas for example Australia is a 6.

The first digit after adding the comma 1,1 labels the Vegetation as either dry or wet. The 1,1 says I am in the Uplands as opposed to a 1,2 for the Wetlands.

The second digit (after the comma) 1,15 tells the Formation-type. The 5 says I am in Desertlands, an arid environment with 12" or less of rain per year.

The third digit (after the comma) 1,154 tells the Climatic (Thermal) Zone, in my case Tropical-Subtropical defined as infrequent or no 24-hour periods of freezing temperature.



Enlarged view of the Sonoran Desertscrub
biotic community within Arizona
[see full North America map on page 3]



The fourth digit (after the comma and following a period) is the Regional Formation (Biome). In my case 1,154.1 indicates Sonoran Desertscrub.

The fifth digit identifies the Series (Community of generic dominants). In my case 1,154.12 is for Paloverde - Mixed Cacti. Another 1,154.13 would be Brittlebush - Ironwood. There are seven distinct Series in the Sonoran Desertscrub Biome. Six of them correspond to the six subdivisions of the Sonoran desert. The seventh is the Saltbush Series, which occurs in basins where salts accumulate in the soil, and plants adapted to salty soils (“saltbushes”) grow.

The sixth digit 1,154.121 denotes Associations (Community of specific dominants), in my case paloverde (*Parkinsonia microphylla*) - bursage (*Ambrosia deltoidea*).

Further digits are used for more details but---.

You get the idea. My botanist friend here in Cave Creek, Steve Jones, who put me onto this digital nomenclature¹, uses this shorthand to describe areas such as those preserved by the Desert Foothills Land Trust.

Driving over to Highway I-17, I noticed that south to Phoenix was mostly creosote (*Larrea divaricata*), 1,154.111.

Hiking up the hill in the Cave Creek Recreation Area from the picnic grounds, I can see that would be a 1,154.127, paloverde - ironwood - mixed scrub Series.

The area up Spur Cross Road to the Jewel of the Creek is a 1,224.531, cottonwood (*Populus fremontii*) - willow (*Salix gooddingii*) community. Note the 2 designates a wet area, the riparian creek bed.

It's challenging to learn the professional's technical binomial names to identify each of our plants but now even more challenging to learn this digital nomenclature for identifying each of our communities of plants.

So now I can even brag to my friends that I really like living in a 1,154.121 plant community.

¹ Digitized Classification System for Biotic Communities of North America, Brown, Lowe & Pase, Journal of the Arizona-Nevada Academy of Science, May, 1979.





FIG. 1—Digitized map of the major biotic communities of North.