|	# How to Record Locality

Your plant specimens will be kept in the herbarium for many decades to come, long after nature and human activity have changed the appearance of San Diego County. We loan specimens to researchers all over the world and because they are not familiar with our region, they must be able to determine from the information printed on the label where they were collected. Your job is to record sufficient information about your collecting location so that a foreigner could find their way back to that place if they wanted to check it out in person, or so they could plot the location of each specimen on a map even if they don't have (or couldn't make use of) the latitude and longitude.

Your grid square handout packet contains several maps designed to help you effectively plan your fieldwork. Use your topographic map [i.e., the one that shows features such as relief (mountains and valleys), water and drainage features (streams, marshes, and lakes), and manmade features (roads, bridges, airports and railways)] to record your collecting locations by marking them on the map. Use the vegetation, soils, and ownership maps we provide to help you find areas of different terrain and vegetation that you should be visiting in order to be able to collect a diversity of plants.
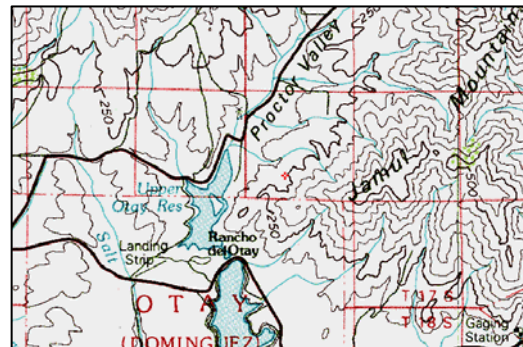
What is the locality information used for?
The locality data that you record is used in two ways: 1) It is printed on the label that is affixed to the herbarium sheets along with your specimen so that someone looking at the specimen in years to come can read about where it was found; 2) It is added to a searchable database along with information about the plant you collected. Latitude and longitude can be requested by researchers and used to create maps that show the distribution of the plants.

What types of locality information do I need to record?
You are responsible for submitting the field data to us using the online data entry form that we have mounted on our website. It asks you to record three types of information about your locality, including the following:

Latitude and Longitude – Mark the location of your collecting site by drawing a dot on the topographic map that we provided (copy the map as necessary). Record the coordinates of your collecting location in your field notebook using either a hand-held GPS unit (with the default "datum" set for NAD 83/WGS 84 and the default "coordinate format" set for degrees/minutes/seconds or decimal degrees) or use the customized link to Topozone that is available on our website www.sdplantatlas.org to get a read-out of the coordinates.
           (*Note: You do NOT need a GPS reading or coordinates for every plant you collect
           – just for each new collecting location.*)

Elevation – Record the approximate elevation (feet or meters) of the collecting site. It doesn't have to be exact. You can estimate elevation by reading the contour lines on any topo map or by taking a reading from your GPS unit. Be sure to look at your map's legend to see what units (ft or m) and increments (20 ft, 40 ft, or other) were used to draw the contour lines. If you use a GPS unit, they are notoriously inaccurate at giving elevation (e.g., the error associated with elevation when using a GPS is one and one-half times the error associated with location). GPS readings for elevation are routinely 100 feet off, and one time in twenty they are completely nonsensical. Keep in mind that elevation can always be derived later if the site coordinates are known (i.e., using GIS) so don't hesitate to round off to the nearest 50 feet.

Locality – Every plant specimen label (see sample below) will have "San Diego County, California" printed on it automatically. That will be followed by whatever you type into the "Locality" box on the online data entry form. Please include which city your collecting location is in (or the closest town/city that is nearby if applicable). It helps if the researcher can look at the label, and quickly see whether the plant was collected in Point Loma or Borrego Springs. Avoid vague descriptions like "W-facing slope, Escondido" or "Sycamore Canyon" (of which there are many in the county) because they don't give enough information for someone to go back and find them.

How to record the locality
Imagine that you are giving directions to a researcher who is a complete stranger to this region. They don't have a GPS or the coordinates of your collecting site, so you need the label data to be able to direct them to your site. Begin by noting a general landmark (preferably one listed on a standard topographic map) such as the name of the closest town/city, or a natural feature like a mountain or lake. Next, record the approximate distance (in miles) and **compass direction** from that landmark (e.g., "Alpine, NW side of Viejas Mountain, ca. 2 mi. N of Victoria Rd."). Triangulating between several landmarks quickly helps narrow down the location on a large map. After that, include additional detail adequate for your visitor to find the general area where you collected the specimen. If the location was near a landmark like a river or reservoir, help them out by telling them details like "west side of reservoir" or "south bank of river". Avoid landmarks that can't be expected to exist a few decades from now ("end of pavement on Suchandsuch Road" or "west of the red barn") or that are meaningful only to you ("north pasture on Gibson ranch").

Identification confirmed as:

Cerastium glomeratum Thuill

Determined by Jon P. Rebman, 2004   (jg#46)

San Diego Natural History Museum
Voucher for San Diego County Plant Atlas

                                                                                    Caryophyllaceae
Stellaria media

San Diego County, California. Pala, Elizabeth R. Mining Claim, 0.15 mi NW of peak of Pala Chief Mountain, 2.25 miles NW of intersection of Pala Temecula Rd and Hwy 76, 33.3891°N. 117.0508°W. Elev. 400 m. Vegetation: Mixed chaparral with *Quercus engelmannii, Adenostoma fasciculatum* and *Arctostaphylos* sp. Geology: granitic; steep S-facing slope.

Annual herb, white flowers.

Jeannie Gregory 46   Square: C11   26 April 2004

Record names of parks, reserves, or wildlife areas
If you collected on public land, always include the complete official name of the park or reserve (for example, Anza-Borrego Desert State Park, Rancho Jamul Ecological Reserve, Cleveland National Forest, Cabrillo National Monument, etc.). Doing so will help make database searches easier for researchers. Please avoid acronyms.

How to tell when you have changed to a new locality
On any outing, you must record a new location description and set of coordinates any time that: a) you drive or hike to a completely new spot to collect, or b) you move away from your initial collecting location and as a result, the vegetation type, geology, terrain (slope, aspect) or elevation changes significantly.

Some cautions
Keep in mind that you are trying to help someone narrow the location of your collecting site from a more general location (like a city) to a more specific area (the intersection of two streets within that city). You can use canyon names, but be specific (is that Palm Canyon in Balboa Park or a different Palm Canyon?). Use names that are published on a USGS topographic map in addition to local names (e.g., "Florida Canyon" on the east side of Balboa Park is actually labeled as "Powerhouse Canyon" on the USGS topo maps).

Which one of the following helps you to put your finger on a spot on a map?

	Example Locality Description
Poor	Florida Canyon hillside
Better	San Diego, Florida Canyon hillside
Best	City of San Diego, Balboa Park, Powerhouse Canyon (Florida Canyon), top of slope, E of Park Blvd and N of Zoo Place.

The "poor" example could be anywhere in the county. The "better" version mentions San Diego but does it mean the City or County? The "best" description narrows it down, using the intersection of two roads as a starting point, and then specifying a location (top of slope in the NE quadrant formed by the intersection). This description states that the specimen came from Balboa Park, and uses the canyon name that is printed on the USGS topographic map plus the local name. Even more detail such as: "steep, E-facing fill slope" is very helpful to include. Record it in the "Geology" section of the online data entry form, which is used for information about the physical setting (terrain) where the plant was found.

If this was a rural location without city streets to help, you would include several geographic landmarks (e.g., a mountain, lake, reservoir, etc.) and "triangulate" your position by recording the distance (miles) and compass direction from each landmark. For example: "Anza-Borrego Desert State Park, just N of Palm Spring, ca 5 mi SE of Agua Caliente Springs, ca 1 mi NW of Canebrake Residential Area/Canyon at the S-2".

For more detailed information about recording field data, and to find out why you still need to record locality even though you are providing a set of coordinates, please refer to the FAQs on our website at www.sdplantatlas.org