



Tree Photography

a brief intro

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Revisions

Rev	Date	By	Comments
0.5	04-16-2007	Doug G Pierson	First Copy pulled out from main manual included in Vol Pack Instructions
1.0	07-28-2013	Doug G Pierson	Added Smart Phones, GIS, New Address

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1.0 Tree Photo

1.1 Taking Photos of Trees

Trees in an urban setting are not very easily photographed. In the confines of a private yard space, vantage points for getting the entire tree in the shot can at times be difficult. There are also objects that block line-of-sight and proper lighting as well as detract from the overall quality of the photo. On a positive note, utility poles are typically a uniform size and height and can be used as an indicator of size. In many instances we have to make do with what we are presented and take the best shots we can in a reasonable time frame so as not to extend our visit beyond an hour or two. Analyze the situation. If a full frame vertical shot can be obtained from an alley behind the house, do so after your visit. If it is from a neighbor's yard, ask the neighbor for permission to stand in their yard to take the photo.

The suburban or rural settings are less of a challenge for photographing trees. Typically you can move 360° around a tree for any type of view and get a good distance away to manage a full-frame vertical.

1.2 Camera Settings

Camera settings and references in this document are for digital cameras. If you have a film camera and are comfortable with it, by all means use it. Digital just happens to be the method of choice and convenience. Inclusive in that class of cameras are many smart-phones like the iPhone, the Samsung S3/S4 and Notes models and most any other major manufacturer that includes cameras on their phones as long as they have a 3 megapixel chip or greater.

For smart-phones, get a good camera app. The included camera app takes photos but doesn't allow much freedom for much else. For the iPhone, ProCamera is the best for the price. It is fully featured with as many settings as a DSLR (digital single-lens reflex) camera and costs around \$3.00 in iTunes. For Android phones, get Camera FV-5 and turn your phone into a high-end camera. It's available from Google Play for \$1.99. Read the documentation that comes with these apps, learn how to use it and practice. They are actually quite fun.

Remember, digital photos can always be deleted and are very easy to take. We are not trying to conserve film so shoot away. Take many shots. I pick the best of a collection and use it on the web site.

1.2.1 *Photo Parameters – Cameras and Smart Phones*

1. **Exposure** - The exposure, color and white balance must be set for outdoors. Set the Light-metering mode to Spot (the square with the dot) and if AE-L (auto-exposure lock) is on the same menu select it. We do not want to use average exposure here since trees are usually backlit by the sky. Point your camera at the tree (gets the light coming back from the tree); the exposure is locked when you click the tree on the screen (phone) or lightly depress the shutter key. Then just compose and shoot.

2. **Auto-Focus** - Set the Focus Mode or the “distance indicator for focus” to the small mountains icon or the infinity symbol, whichever is on your camera.
3. **Flash** - Objects the size of trees will get no benefit from using flash unless the tree is quite small; you have a wide-angle flash adapter and it is quite powerful; or you have a flash system borrowed from a Hollywood production company. Fill-flash can be used however for the tree components to help bring out detail if used judiciously.
4. **Picture Size and Resolution** – Most cameras shoot and save in JPEG files. Select the largest JPEG file your camera allows. If it also has a setting for Quality, select Best. Also if it allows changing the Aspect Ratio, select 16:9.

NOTE: *Larger file sizes take longer to save to memory chips. Before you take the next photo make sure the save is complete. You may think your camera is dead when it is only saving a file. Save times get very long when the battery is weak. Another note here is choice of memory chips. Always get the largest storage size [8-16-32 Gb] memory card your camera will allow and ALWAYS USE A CLASS 10 CHIP/CARD. Class 10 cards are the fastest writing chips for accepting large data files like photos. It will cut down your wait time and eliminate write errors.*

5. **Digital Zoom** – This setting is a sale come-on and has no value. Turn it off.
6. **Face Recognition** – Unless there are people in the tree you are shooting, this is just clutters the view screen and slows down the exposure. Turn it off.

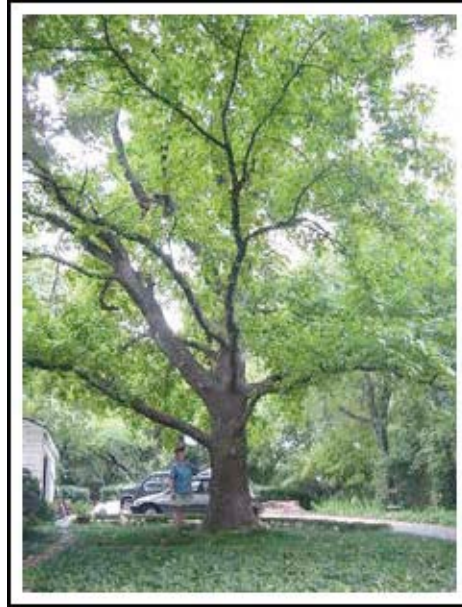
1.2.2 **GIS Location Setting**

This setting is under a separate heading because it is quite important to Texas Tree Trails. The Tree Owners set the priority for this setting and we must adhere to it. **We are bound by contract to do this.**

1. For all tree locations marked as Private, the GIS locations settings on your camera must be turned off. If your camera does not have an adjustment for this, indicate so by email (when the photos are sent) in to Doug Pierson piersonpub@gmail.com.
2. For all tree locations marked as Public, the GIS Location settings on your camera or phone should be on. This can be a fallback GPS measurement if the tree measurement team forgets or get a bad measurement.
3. If all else fails I have an app to remove the data, however, it is much easier to nip it right at the start,

1.3 Photographs

Figure 1.1 Vertical Tree Photo



We need at least one, vertically-oriented tree photo; more if possible from different perspectives around the tree. (Even more in different seasons of the year but that is totally another topic.) Above is an example of the vertical format photo. A person or an object of known or common size should be in the foreground to indicate size. Each photo should be of such resolution that the file size would be 2-3 Megabytes or greater. They don't have to be huge but large enough to edit and provide sufficient clarity and resolution.

The exposure, color and white balance (digital cameras) should be set for outdoors. In some instances due to the layout of the tree owner's property, you may not be able to get far enough away to get the full tree in the photograph. Plan for that after (or possibly even before or during if you have a partner) the measurement assignment to look for a vantage point, keeping in mind private property rights, where you can view and photograph the entire tree. If that is not possible, take the most representative vertical shot that would describe the tree.

Backlit situation must be avoided at all costs. This usually renders the photo useless or at best very ugly and hard to work with. Use a spot meter on your camera if you have one and meter the light on the tree. The best time to photograph a tree is on an overcast day that's not really too dark. On a sunny day keep the sun to your left or right if at all possible or as a last resort behind you; never in front of you unless you are an experienced photographer and know what to do in these circumstances. If the sun is directly overhead you may have problems if you angle the camera up for tall trees. Try to shade the lens if at all possible. Try to get the sun to your side.

NOTE: *If the photos are being taken on private property and the owner has designated the location to be masked or hidden, turn off the GIS or location function of your camera. If you cannot do so, indicate this in the measurement data or by sending an email to Doug Pierson with the Tree ID and photography date. We will check the photos against the Site form to ensure the owner's wishes are realized.*

Figure 1.2 Photo of Tree Component



We also need several other photos for descriptive purposes that we will use in a horizontal format. These will be of the BARK, the LEAVES, the FRUIT, the STEMS/BUDS, branching characteristics or anything that is characteristic or peculiar for this tree. An example is to above. Remember more is better.

If you are using a film camera, that is no problem. Have prints made and mail them to:

Doug Pierson
3002 Jacob Dr
Wylie, TX 75098-8907.

He can scan them for upload to the database. Write the Tree ID number on the back of the print with a wax or soft lead pencil.

1.4 Photo Handling and Retention

After measurements have been made and recorded on the Nomination form and the tree owner and Volunteer have signed the Site form, the forms are mailed to the TFS Regional Forester.

1. The Regional Forester retains the forms and files them in a Texas Tree Trails file.
2. Digital photographs are assigned file names by "Tree ID - Tree Common Name – and a Sequential Number" (e.g.,231BlackWalnut-12) and then burned to a DVD-ROM. The DVD is either delivered or mailed to Doug Pierson.
3. Photographic prints are handled in the same manner (i.e., Sent to Doug Pierson). Each will be scanned at 300 dpi 24-bit color and saved as Windows bitmaps. JPEGs will be fine also although the Windows bitmap or TIFF is preferred. The scanned photos are then treated as the digital photos above.

1.5 Closing Remark About Safety

We highly recommend going on measurement or photographic outings in pairs especially for women. This is for safety's sake. It used to be quite all-right to come and go as you pleased however crime statistics show people are randomly victimized regardless of age, sex, creed, color or ethnic origin or the part of town they happen to be in.

Be careful and by all means have fun with it. Learn something new. Step outside, meet a new tree and oh, by the way, thanks for volunteering.