

## Tucson Audubon's Lucy's Warbler foraging observations protocol

The goal is to record foraging effort and foraging site preferences for Lucy's Warblers. The basic idea is to find an area where you can stand and see both native and non-native mesquite trees (guide to identifying the different trees at end of protocol). This can be a bit difficult to find and Tucson Audubon has a map of some locations we have identified but any location where there are both native and non-native trees in view will work. Please feel free to add locations to this map if you know of any or contact us and we can add them – email your locations to [nestbox@tucsonaudubon.org](mailto:nestbox@tucsonaudubon.org)

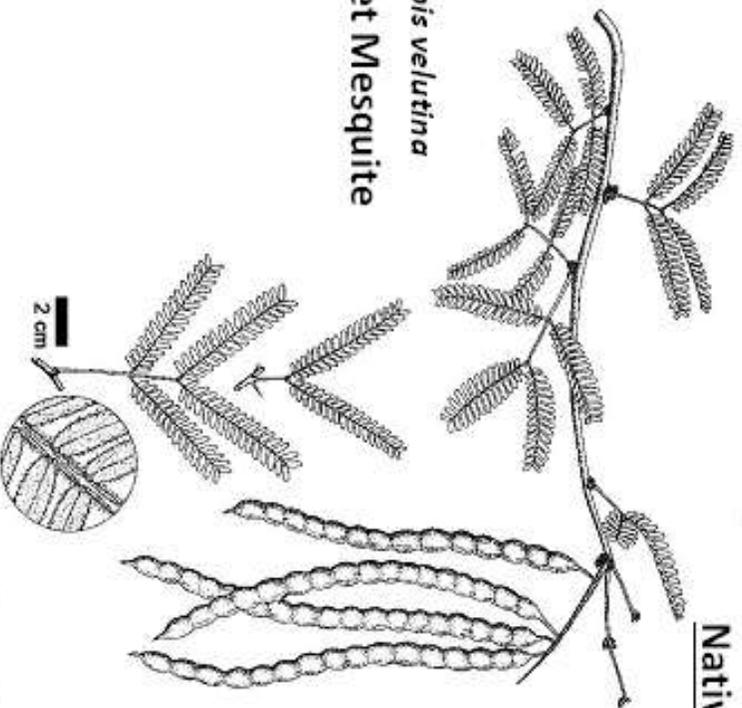
Here is the map of locations that will be added to over time:

<https://drive.google.com/open?id=1wWgyWYexaylema4wRYz-ZobmPEdU7IPV&usp=sharing>

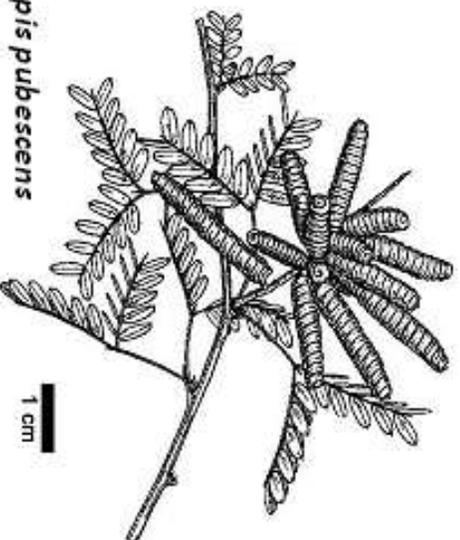
- 1) Find a location where you can see both native and non-native mesquites.
- 2) Fill out the top of your data form with you name, date etc. and be sure to describe the trees at the point you are surveying – especially in terms of how many native vs non-native trees are present and their relative size.
- 3) Locate a foraging Lucy's Warbler – their song is quite distinctive (like a more rapid Yellow-Warbler) but their call is also very useful to know. It is a single “tink” note that sounds quite like a very small grosbeak. Lucy's Warblers call frequently as they forage.
- 4) Find a Lucy's Warbler and start stopwatch
  - a. Under “individual”, write a number you have assigned to the Lucy's warbler you are watching.
  - b. Watch the warbler and every time it switches trees, record the seconds it spent in the tree it just left. This can get tricky if it is moving a lot so an app or stopwatch that records “laps” is useful.
  - c. Note what type of tree it's in and make a check under the correct type of tree it was using during those seconds.
    - i. If “other” , record the species (or photo, or bring a sample back for ID if not sure).
  - d. For each segment of time recorded where the Lucy's Warbler was foraging in a tree indicate the level of effort of the foraging bird. How much was it pecking at the flowers or leaves of the tree.
  - e. Note in “comments” if there are any obvious types of insects taken or any other behaviors observed.
- 5) When you are done with that individual bird, you can start over with another and begin again with a new assigned number for the new Lucy's Warbler.
- 6) Be sure to return the filled out datasheets to Tucson Audubon or scan and email to [nestbox@tucsonaudubon.org](mailto:nestbox@tucsonaudubon.org)

Native Mesquites

*Prosopis velutina*  
Velvet Mesquite



*Prosopis pubescens*  
Screwbean Mesquite

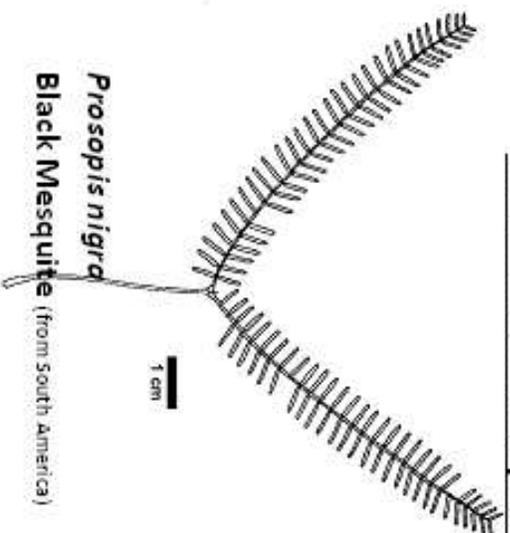


Non-Native Mesquites

*Prosopis alba*  
South American Mesquite



*Prosopis nigra*  
Black Mesquite (from South America)



*Prosopis chilensis*  
Chilean Mesquite

