



LUCY'S WARBLER

About your new nest box

Congratulations! You have one of Tucson Audubon Society's warbler nest box designs! These boxes are the smallest size that we offer, and designed to be used by Lucy's Warblers. The front panel is 2" by 3" and has a hole on the front which is 1 ¼" in diameter. It is rectangular in shape, and 7" deep, with a hinged side panel for easy monitoring. The other triangular design is based on their natural cavities constructed in peeling mesquite bark. Both have been recorded being used by the Lucy's Warblers.

About the species that may use this box

LUCY'S WARBLER (*Oreothlypis luciae*)

Just four inches long and very active, Lucy's Warbler has been known in the past as the Desert Warbler and the Mesquite Warbler. Few birds are as intimately tied to a single plant species as Lucy's is to mesquite. Primarily gray with a rusty cap, rusty rump, and white eye-ring, Lucy's warbler can be seen in early spring as it sings from the tops of mesquite trees: *whee-tee, whee-tee, whee-tee, wheet-tee, wheet*. Like many species, Lucy's has suffered from the continuing destruction of Arizona's riparian habitats. As mesquites are cut, rivers are developed, and groundwater is pumped to supply water to urban areas and agricultural use, life zones along waterways face drastic changes. Some populations of Lucy's Warblers have disappeared entirely. Surveys reveal that populations have decreased across most of Lucy's range, though population increases have been documented in stands of tamarisk along the Colorado River.



Figure 1 Lucy's Warbler (John Kennedy)

HABITAT Lucy's Warbler breeds primarily in dense stands of mesquite trees found in riparian habitats, though it also nests in cottonwood-willow galleries and sycamore-ash-live oak ecosystems. Even in suburban settings, Lucy's likely seeks out mesquite trees.

BOX MOUNTING The average height of Lucy's Warbler nests is 8.7 feet, though nests are found from 3 to 36 feet high. Nests are usually well concealed and sheltered in some fashion. Boxes might best be mounted in dense foliage with plenty of shade. It is recommended to put the nestbox in or near a mesquite tree on the east or north side of it to avoid harsh afternoon sun.

NESTING FACTS Lucy's warbler is highly adaptable to a variety of nest sites: in woodpecker holes, behind loose bark, among river bank roots, and in abandoned nests of other species including thrashers, verdins, and cliff swallows. Although Lucy's does not have a documented history of readily using nest boxes, we have collected numerous reports of successful nests in our boxes as well as other small decorative boxes. Lucy's likely raises two broods a year with nests built and eggs laid from mid-March through early July.



Figure 2 Lucy's Warbler nestlings in triangle box by Celeste Andresen

Monitoring your nest box

We encourage you to let us know if birds use your box. If a nest is started, email us at nestbox@tucsonaudubon.org and please register your box at www.nestwatch.org and follow the instructions in the following monitoring document, which will share your data with Tucson Audubon:

Set Up A NestWatch Account

Follow this link: <http://nestwatch.org/nw/join/tucsonaudubon>

If you have a NestWatch account sign in. If not, click "Need an account?" and set up a NestWatch account.

In NestWatch, Set up a Nest Location

To set up a new nest location:

1. At www.nestwatch.org, go to "Your Data" and click "Add New Nest Site"
2. Type in an address close to where your nest box is located. Next, using the map, zoom in and drag



the icon to the exact spot the nest box is located.

3. Scroll down and fill out all the information about your nest box that you can. If you don't know some of what they are asking, elevation above sea level for example, then you can just skip that question.
4. If you are monitoring multiple nests then you can separate out the nests into groups by selection "Add this nest to groups."
5. Click save when you are finished. You can always come back to change or add more information to this nest site later on.
6. You cannot link this nest box to the Tucson Audubon Society until birds have attempted to nest in the box.
7. Once the nest site is saved, then continue to monitor the nest box regularly (minimum once a week) until you see birds (or other animals) attempting to nest.

Occupied Nest:

When monitoring, if you see that the nest box is occupied then take the following steps.

1. Identify the occupant. If the occupant is not present then record the nest's shape, what it is made of and the number and appearance of eggs if they are present. The most important reason for

identifying the occupant quickly is so that invasive, unwanted species can be removed before becoming established. Non-native, invasive species, like House Sparrow and European Starling, compete for nesting spaces with our native species. Native species often need to be supported because they are declining. Starlings and House Sparrows have adapted to most parts of the globe where humans live, and do not need our help to survive.

I. Use binoculars and a field guide to birds to try to identify adult birds that using a box. Consult the Tucson Audubon Nature Shops if you need a field guide or binoculars.

II. Nest identification help is available from NestWatch: <http://nestwatch.org/learn/how-to-nestwatch/identifying-nests-and-eggs/>. Bird identification help is found at National Audubon's online field guide: <http://www.audubon.org/bird-guide>.

III. This page shows European Starling and House Sparrow nest and egg examples: <http://www.chuckspurplemartinpage.com/starspar.htm>

IV. If you are having difficulty identifying a nest or bird you can take a picture of the bird, or the nest when the adults are gone. Send the photos to kkroesen@tucsonaudubon.org and we will try to make the identification.

2. If the nester is positively identified as an invasive or unwanted species such as a House Sparrow, European Starling, or non-bird, remove all nesting material. Continue to come back to the nest daily to make sure they do not try to rebuild their nests. If unwanted birds repeatedly build nests despite being cleared out, then moving the nest box might be helpful.

I. If you find a wasp or bee colony in your nest box, do not have any sort of pesticide sprayed into the nest in order to remove it as this will poison any future bird residents.

i. If you notice bees swarming (or clumped in a ball) around your nest box but they have not yet built their nest you can have the swarm removed through an environmentally friendly live bee trap. Find an environmentally-friendly bee removal expert or contact one of the following companies:

<http://www.americanbeecontrol.net/>, http://www.azpest.com/bee_control.asp,
<http://www.essentialpest.com/residential-bee-removal/>

ii. If the bees or wasps have already built a nest then ABC American Bee Control (first link above) should be able to remove an established bee hive without using any insecticides or killing the bees. Some people "do it themselves" by waiting for a very cold morning when bees are inactive, and then plugging up the hive or covering it in a burlap sack then submerging it in water. However, it is best to assume that any honey bees in this region are Africanized—do not take chances unless you are sure of what you are doing.

iii. Once the hive is cleared out then scrub the inside of the nest box with soap and water so that future bees will not be attracted to it.

iv. You can keep the nest box covered when it is not nesting season to prevent hives.

II. If a mouse nests in your nest box then make sure to wear gloves and masks while removing the nest to avoid hantavirus.

- Laws in Arizona protect squirrels as non-game animals unless they are causing damage. Therefore it would be recommended to leave live squirrel young alone. Try to remove any squirrel nests before they have young.

NestWatch Resources:

<http://nestwatch.org/learn/nest-box-resource-center/controlling-competitors-non-natives/>
<http://nestwatch.org/learn/nest-box-resource-center/managing-house-sparrows-and-european-starlings/>

3. If you identify your nester as a non-pest species then you are ready to log a nesting attempt into your NestWatch account!

Recording a Nesting Attempt:

1. Sign into NestWatch and go to "Your Data" then click "Nest Site List." If your nest box is not listed, follow the instructions above to add a nest site. Otherwise, find the correct nest side and click on "Add Attempt."
2. Record what species is nesting and under "Connect This Nest To a Community" select "Tucson Audubon Nest Boxes for Urban Birds Pilot Project"
3. If you want to fill out the sheet by hand while in the field, you can print out this sheet from NestWatch: http://nestwatch.org/wp-content/uploads/2012/05/DataSheet_20120516_final.pdf
4. Each time you monitor the nest fill out each section of the nest visit table which looks like this. If you think that this table is too small or hard to read then you can switch over to "Change to Single Entry Mode."
5. For status and activity sections two letter codes are used to succinctly describe the status of the nest, adults and young. Click on the box and select the code that best describes the status and activity of each. (Ex: ba if adults are observed building a nest)
6. If you are in the field you can find a list of codes and their descriptions on the print out mentioned above. They are listed under breeding data on the second page.
7. Cowbirds are parasitic birds that lay their eggs in other bird's nests. If you find cowbird eggs in your nest you can remove them but make sure not to disturb the nest in the process. More information about cowbirds can be found here: <http://nestwatch.org/learn/general-bird-nest-info/brown-headed-cowbirds/>
8. You should not leave any blank spaces in the nest visit box and a new line should be filled out for each time the nest box is monitored. You can put a "u" for unknown if you are unable to count eggs or young.
9. If you noticed anything additional to what is covered in the table then record that in the notes section.
10. Once you record all information for a visit then scroll down to the bottom of the page and click "Save All Data."
11. Do not fill out any nest summary information until all the young and adults have left or have died.