



The Garden Club of the Upper Keys

News & Notes

March 2021

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General Membership Meeting via Zoom

Please join us at 11:00 AM on Tuesday, March 16 for our monthly General Membership meeting. The Resource Links page of this newsletter (Members Only Edition) provides the meeting link (url), Meeting ID, Passcode and some basic instructions.

Meeting Agenda

- **Call to Order and Welcome:** President Kathy Janco will welcome members to our General Membership meeting.
- **Guest Speaker Presentation:** Program Director Laura Hartner will introduce our guest speaker, Michelle Leonard-Mularz. Michelle is the Environmental Horticulture Agent for UF/IFAS, Monroe County Extension and a complimentary member of our club.
- **Guest Speaker Presentation: "Backyard Bugs: The Good and the Bad."** Our speaker, Michelle Leonard-Mularz, will discuss common bugs in our area, and what to do to encourage the good ones and discourage the bad ones. A brief introduction to her presentation is provided below.
- **Business Meeting:** Presiding over the business meeting, President Janco will share recent Board actions and decisions. Members of the Board will provide highlights of the work accomplished in the past month.

Bugs: The Good and the Bad

Bugs! Those pesty, creepy, crawly or flying little creatures in my garden! Did you ever wonder what to do about them? If you join our March 16, 2021 General Membership meeting at 11:00 AM on Zoom, you will have the opportunity to find out. Michelle Leonard-Mularz will present this interesting program. She is the Environmental Horticulture Agent for UF/IFAS, Monroe County Extension Service, as well as a GCUK member.

Michelle will help us to identify common bugs in our Keys' gardens. She will show us how to recognize bugs we want to encourage and methods to increase their population. Conversely, she will show us those that are not good for the health of our plants and methods to decrease their population.

Michelle's knowledge and experiences make her a valuable resource to address our topic of bugs. She holds a bachelor's degree in Environmental Horticulture with a minor in Entomology and is a Certified Arborist with the International Society of Arboriculture. She previously worked with the Florida Department Agriculture and Consumer Services, initially as a plant inspector, then enforcing the Florida Pesticide Law and Structural Pest Control Act. Prior to the position with FDACS, she worked in private industry for a plant broker and began her career at Broward County Extension Service as the commercial horticulture program assistant. She is currently pursuing her master's degree at the University of Florida in the Soil and Water Sciences Department.





From the desk of President Kathy Janco

I can't believe how fast 2021 is moving along! Here we are in March already and moving rapidly into Spring. I hope you're enjoying our beautiful weather and staying safe and healthy.

I am happy to report I have heard from several members that they have been vaccinated with one of the COVID vaccines. I am hopeful we will be able to meet in the club garden for our April general membership meeting.

I would again like to thank every one of our members who have been helping at the clubhouse during this past year and who have shown up at our garden get-togethers. It has not been an easy time but it has been a small bit of normalcy to see our club friends even at a distance. I got to dabble in a few crafts that I would not have normally tried, and enjoyed myself. We have quite a talented group.

It has been wonderful to see the support that many of you have shown to keep our clubhouse going during these difficult times either financially or physically with your club hours. Our club needs all the support we can get because of the loss of revenue of not having out two major fundraisers over this past year.

Thank you all so very much. Fingers crossed we get to see each other very soon.

My best to you and yours,
Kathy

GCUK General Membership Meetings Will Take Place Outdoors at the Clubhouse Starting in April!

Our April 20, 2021 meeting will take place OUTDOORS at the Francis Tracy Center at 11 am. Program Director Laura Hartner is still working to line up our guest speaker. It will be announced in next month's *News & Notes*. Charlene Regenhardt and Laurie Brooks will also share information regarding the TDC grant.

Our May 18, 2021 meeting will be outdoors for our annual Potluck lunch and installation of officers at Francis Tracy. The meeting will begin at 11 am. Laura is working on plans to have a "Plant Swap" at the meeting. Please save the date!

Out of an abundance of caution, we request that members RSVP to Laura at programdirector@gardenclubupperkeys.org a week prior to each meeting, so that we can set up tables and chairs with adequate spacing. In addition, the pot luck will be a bring your own food event, although an individually wrapped dessert and bottled water will be provided.

GCUK History Tropical Wonderland

By Gerry Yeager

In February of 1957 (long before any of us were born ☺) the Upper Keys Garden Club participated in "The Florida Garden Show" sponsored by the Upper Keys Chamber of Commerce. Entitled "Tropical Wonderland", the show was held at the beautiful new auditorium of the Coral Shores School. The Garden Club had an exhibit of native trees in line with information on their selective clearing program, which promoted the preservation of recognized native trees. Members of the Club, under the leadership of Francis Tracy, were present to answer questions and explain the importance of native trees. Select plants were available for sale. Admission was \$1.00. (from the 1956-60 Scrapbook)

Update to the Mystery of the Mohawk Shipwreck article in the January, 2021 newsletter: Gerry found in a version of the club's history, some information that somewhat contradicts the other version of the source of the cornerstone. "A granite cornerstone was salvaged by Rodney Albury from a ship that sunk off Tavernier in 1890." So, it is possible that the ship name and/or date it sunk are erroneous.

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Upper Keys, Inc.
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Board of Directors

President - Kathy Janco
V-President - Laurie Brooks
Treasurer - Anne Makowsky
Secretary - Laura Hartner
Directors of:
Fundraising - Kathy Holmes
Hospitality - Betty Ann Gear
and Fran Reig
House - Christine Hudson
Membership - Charlene
Regenhardt
Program - Laura Hartner
Property - Beverly Middleton
Publicity - Patti Graham

A note from the editor...

This month's newsletter and guest speaker topic for our upcoming General Membership meeting is about insects—both good and bad. I avoid most bugs, especially if I don't know whether they bite or sting. My little brother was fascinated with bugs when he was a youngster. He used to pick them up when he saw them, until he tried to pick up a bee one time and it stung him. He was more cautious after that incident, but he still liked bugs (and spiders and snakes too—ugh!).

Please join us at the upcoming Zoom meeting this Tuesday to learn more about bugs from our knowledgeable guest speaker Michelle Leonard-Mularz. Michelle will educate us on how to attract the beneficial bugs and how to control the harmful bugs. I've already learned quite a bit from Michelle and our other master gardeners about plants, but not as much about the bugs so far. Regardless of whether it's plants or bugs, you can find Michelle and several of our master gardeners at our clubhouse property from 9 am to noon on the third Wednesday of every month for the UF/IFAS Monroe County Extension Service Plant Clinic.

Michelle also sent a detailed article about subterranean termites, which is provided on pages 10-11. Following her article, I added some excerpts from UF/IFAS about mosquitoes, which are on everyone's mind due to the health risks they pose. A link is provided to the more detailed article available on the internet.

Last month, we focused on some of the beneficial pollinating insects, butterflies. Speaking of pollinators, I saw quite a few bees buzzing around the *lignumvitae* in the front berm. It is blooming profusely and seemed to be calling out to me to make it Plant of Month, so that's what I did! I also added a short description of the lyside sulphur butterfly, which is rare in south Florida and uses *lignumvitae* as its host plant.

Although a little off-topic, somehow we started talking about screech owl nesting boxes during the Q&A after the speaker presentation last month. A number of us were interested in making a nesting box, so Laura found a pattern on the Audubon website (see page 17).

The Resource Links page includes some interesting websites and articles about insects. Since many of us are often looking for native plants for our own properties, Laura also compiled a list of nurseries and vendors who sell native plants.

I am so glad that we are finally resuming in-person meetings. Although they will be different than before and will be held outdoors, it will be so enjoyable to finally see everyone at these outings. Please join us if you can!

Cordially,
Charlene Regenhardt



Notes from the Directors...

HOSPITALITY CO-DIRECTORS Betty Ann Gear and Fran Reig need volunteers to help with meetings at the clubhouse in April and May. Assistance includes helping set-up and clean-up refreshments at General Membership meetings and special events. If you are interested in helping out, please call Betty Ann or Fran.

HOUSE DIRECTOR Christine Hudson continues to organize volunteers to help with cleaning and house maintenance. Priming is completed and we are halfway through final painting. We still need help finishing painting walls and trim. Once painting is completed, the clubhouse will need a thorough cleaning. Please contact her if you can help! (Or send a message to gar-denclubupperkeys@gmail.com.) She is working with Terranova to have internet services installed at the clubhouse.

PROPERTY DIRECTOR Beverly Middleton continues to work on the gardens. Please stop by to help weed, water, and plan enhancements to the landscaping.

VICE-PRESIDENT AND DIRECTOR OF COMMUNITY OUTREACH AND EDUCATION Laurie Brooks announces that the most recent Florida Keys Native Plant ID class with Jim Duquesnel was held by Zoom on February 16. The topic was Agaves and we got some help identifying some of our specimens in our cactus garden. The next class is on Tuesday, March 16 from 5:30 to 7:00 pm. The topic is the genus *Chiococca*. These are the snowberrys in the coffee family.

The next work day for the REEF butterfly, Connect to Protect and Ocean Unity display gardens is Saturday, March 20 from 10 to 11 am. We will perform general garden maintenance. REEF work days are regularly scheduled on the third Saturday of each month. Our last work day was on Feb. 20th – Nancy Perez, Charlene Regenhardt and I worked with Dave Ehlert and the REEF interns. One of the new interns, Sierra was president of her college garden club and is very interested in helping to maintain the gardens at REEF. The interns followed us to the Garden Club and spent an hour helping remove invasive plants from the property.

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Notes from the Directors...

(Continued from page 3)

The first Master Gardener plant clinic at the Francis Tracy Garden was held on February 17th and the next one will be March 17th from 9 –noon. Michelle Leonard-Mullarz, Lonell Rice, Suzy Cushman and Laurie participated. Holding the clinic in the garden had the added benefit of being surrounded by living exemplars of plants for identification and horticultural practices.

On February 27, Laurie bought two week-at-a-glance calendars for the clubhouse—one to track inside work and one for the outdoor garden work. It will allow us to track volunteer hours, record what work was completed, and make notes of tasks needing done. Laurie put the outdoor calendar in the permit box that Steve and Kathy Holmes provided and hung the box on the shed door so that it is accessible to anyone stopping by the property.

PROGRAM DIRECTOR Laura Hartner continues to line up events for our upcoming General Membership meetings. Last month's General Meeting presentation by Susan Kolterman entitled "Keys Friendly Gardening for Butterflies and Their Friends in a Unique Circle of Life" was well-received. Susan will be sending her slides for posting on our website if you missed this meeting or want to see her stunning photographs of native butterflies. As a result of questions asked at her presentation, you will find a list of native plant suppliers in this issue as well as information on how to make a screech owl box. If you would like to make an owl box as part of our Garden Get-Together Program, please e-mail Laura Hartner at programdirector@gardenclub-upperkeys.org.

The next "Garden Get-Together" will take place on March 17, 2021 from 12 noon to 1:30 pm, following the UF/UFIS Extension Plant Clinic. Laurie Brooks will present a useful "hands-on" primer on how to take care of your garden bed. This will be helpful for members who have adopted a bed at Francis Tracy or tend to their own garden at home.

Laura is planning to have another Garden Get-Together on Wednesday, March 31, 2021 at 10:00 am outside in the garden to make a small reed basket. See the photo and the supply list posted in this newsletter. Laura can supply the reeds for a small cost. If you are interested, kindly e-mail Laura, by March 17, at programdirector@gardenclubupperkeys.org.

We are planning to hold our last two General Membership meetings OUTDOORS at the Francis Tracy Garden Center. You will be asked to register in advance so that

we can set up chairs prior to the events. The primary speaker for the April 20 meeting has not yet been confirmed, however, Charlene Regenhardt and Laurie Brooks will be sharing plans, details, and needs related to the TDC (Tourist Development Council) grant we received. Our May 18, 2021 meeting will be our annual Pot-Luck lunch, President's End of Year Report, and Installation of officers. A "plant swap" will also take place at this event. More details will be forthcoming.

PUBLICITY DIRECTOR Patti Graham and her team would like to remind members to continue visiting our Website and Facebook pages. Photos from the field trip to Community Garden in Islamorada were posted to our Club website and Facebook. Please bring family and friends to the March Zoom meeting. Join us for the Garden Get Together in March and take lots of pictures for our Website and Facebook page.

FUNDRAISING DIRECTOR Kathy Holmes is working on fundraising options for the remainder of this year and next year. With vaccines coming out and the possibility of seeing the light at the end of the proverbial tunnel, we have rescheduled our two signature fund raisers. The Gingerbread Craft Market will be Saturday November 27, 2021 at the Francis Tracy Garden Center and our Garden Walk will be Saturday, February 19, 2022. With the uncertainty about the future, we will continue to monitor the situation and update you with any changes. Kathy will need all hands on deck! Please consider how you can be a part of these two fabulous events. If you know of any properties for the Garden Walk or have any other ideas, please contact Kathy (contact information for all board members is provided on page 18). Kathy is also looking for people with technical computer skills to help put together a video link for a virtual garden tour. If you know anyone that fits this description, please have them contact Kathy.

MEMBERSHIP DIRECTOR Charlene Regenhardt is processing membership forms. So far, 48 individual members and 36 family members have replied. We also have 7 honorary and 4 complimentary members, for a total of 97. Also, please welcome our newest members:

- Pat Uhl
- Janet Lee & Laura Wells (family membership)

Lunch & Learn

The Florida Native Plant Society hosts weekly YouTube videos about a variety of topics at noon on Fridays. This week's topic is "10 Native 'Weeds' for 19 Butterflies." If attended live using [this link](#), you can ask questions following the presentation using the chat feature. For a link to prior presentations, bookmark [the full Lunch and Learn YouTube playlist](#).

Garden Get-Togethers and Club-Sponsored Activities

In-person Plant Clinics

The clinics are held at our gardens every third Wednesday from 9 am to noon. The next clinic is scheduled for March 17. Masks and social distancing are required, but the new format allows in-person interaction while still protecting participants.

March 17 Garden Get-Together

Right after the Plant Clinic, on March 17 from noon to 1:30 pm, Laurie Brooks will present a “hands-on” primer on how to take care of your garden bed. This will be helpful for members who have adopted a bed at the clubhouse property or others who are interested in gaining additional skills to nurture their own gardens. Please join us for this informative event, or come early for the Plant Clinic—the master gardeners can help you identify any plants in your bed that you aren’t familiar with!

Workday at the Clubhouse

In the spirit of maintaining momentum from last month’s effort, we plan to have monthly workdays in March, April, and May. The March workday is scheduled for Saturday, March 20 at 11 am.

Although much was accomplished at the February workday (see page 13 of this newsletter), there is still more to do to beautify the grounds and prepare for the TDC grant related projects.

One of the first TDC grant projects is to harden off the shed to prevent rodents from coming into the space, which has been a perpetual issue. We are obtaining quotes for the work and we want to clear out the shed to prepare the space for the work.

Although many invasive plants have been removed, we wish to continue this effort and to tidy up areas that aren’t currently maintained under our Adopt a Bed initiative.

As with the previous workday, we will provide bottled water and light snacks (individually wrapped to prevent the need for utensils or plates and to mitigate the chance for any food items to be touched by multiple people). Although officials have been stating for quite some time that there is no evidence that the virus is spread by food consumption, we continue to use an abundance of caution to make sure everyone is safe.

March 31 Garden Get-Together A Tisket, a Tasket, Let’s Make a Little Basket

On Wednesday, March 31, 2021 at 10 am, you can make a little basket outside at our Garden Get-Together. The basket is pictured. It measures approximately 3½ inches long by 2½ inches wide and is 2 inches high with a handle extending 2½ inches.

For the project, Laura Hartner will supply the reeds for a small cost. You will need to bring the following supplies:

- Awl, icepick or small screwdriver— for tucking ends of materials into weave
- Clip clothes pins— to hold pieces as you weave
- Pencil
- Scissors
- Pail or large container for soaking reeds
- Tape measure
- Towel

If you are interested in making a basket, please email Programdirector@gardenclubupperkeys.org by Wednesday, March 17. Group size is limited to 10 members.



Mystery Tree

Does anyone know what the small tree with the “acorn-looking buds” is?

It’s located on the western side of the property not far from the sunroom entrance. If you know, please send a message to gardenclubupperkeys@gmail.com.



Photos From Islamorada Community Garden

A BIG thank you goes to Ed Kattel, founder of the Islamorada Community Garden, for hosting our field trip on Wednesday, February 24. More than 15 members attended. Ed Kattel generously showed us around the vegetable beds, answered questions, and offered us samples to taste or take home. A few pictures are included below, with more available on our Facebook page.





Plant of the Month

Lignumvitae

(*Guaiaecum sanctum*)

by Charlene Regenhardt

On a recent visit to the Francis Tracy Garden, I noticed the lignumvitae blooming so it was fitting to pick this beautiful, rare tree as the plant of the month. Our property has several lignumvitae, with two of the largest located towards the southern end of the front berm.



Lignumvitae tree in front berm of Francis Tracy Garden Center

Lignumvitae is native to Mexico, Central America, Florida, the Caribbean, and northern South America. It is the national tree of the Bahamas.

Lignumvitae is a small tree or large spreading shrub with a rounded crown. It is an extremely slow-growing broadleaf evergreen that ultimately reaches 30 feet in height and casts light shade, but few people have seen plants of this size because it is not typically grown in the nursery trade and can only be found at specialized native plant nurseries.

Lignumvitae provides food and shelter for birds and is a nectar source for butterflies and bees. It is also the larval host plant for Lyside Sulphur butterflies.

The leaves are compound, dark to bright green in color and occur as three to five pairs of leaflets, which fold

together during the hottest parts of the day. Trunks are usually gnarled, short and irregular.

The one to two-inch-long, leathery, dark green leaves are joined by the production of large clusters of bluish purple flowers at many times throughout the year. The old flowers fade to a light silvery-blue, creating the effect of a shimmering haze over the rounded canopy. The flowers have five petals each and can grow individually or in clusters at the ends of branches.



Lignumvitae tree in bloom (Photo taken March 5, 2021)

The flowers are followed by small, heart-shaped, yellow orange berries, appearing on the tree at the same time as the bluish purple flowers and creating a lovely sight. Flowers yield yellow pods containing black seeds encapsulated separately in a red skin (see photo on following page).

Lignumvitae is Latin for “wood of life.” The plant derives its name from its medicinal uses; lignumvitae resin has been used to treat a variety of medical conditions from coughs to arthritis. The chips of the wood can also be used to brew a tea, and it’s other common name “hollywood” was derived for its use to treat syphilis, the so-called “French Evil.”

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Lignumvitae seed pod (Photo taken September 7, 2020)

In South Florida, *Lignumvitae* naturally occurs only in the Florida Keys and the Key Biscayne area of Miami-Dade County, although it has been widely planted elsewhere. It is listed as endangered by the state of Florida and as critically imperiled in South Florida by The Institute for Regional Conservation.

The wood from *lignumvitae* is one of the hard, dense woods commonly referred to as “ironwood.” It is so dense that it sinks in water. Due to its hardness and density, the wood was used to make croquet mallets, bowling balls, propeller shafts, and gears. The resinous wood is self-lubricating, which made its use popular in the ball bearings and gears of pendulum clocks, water-lubricated shaft bearings for ships and hydroelectric plants, and the stern-tube bearings of ship propeller shafts.

Lignumvitae was formerly logged to near extinction for its beautiful and useful wood. However, one Florida key retained its abundant population of *Lignumvitae* because it was privately owned. It's now the *Lignumvitae* Key Botanical State Park, which is accessible only via boat. The following link provides a downloadable park brochure: [Lignumvitae Key BSP INSET PRESS.pdf](http://Lignumvitae%20Key%20BSP%20INSET%20PRESS.pdf) (floridastateparks.org).



Cultivation Data

Source: IRC Natives for Your Neighborhood

Soils: Moist, well-drained limestone soils, with humusy top layer.

Nutritional Requirements: Moderate; can grow in nutrient poor soils, but needs some organic content to thrive.

Salt Water Tolerance: Low; does not tolerate long-term flooding by salt or brackish water.

Salt Wind Tolerance: Moderate; grows near salt water, but is protected from direct salt spray by other vegetation.

Drought Tolerance: High; does not require any supplemental water once established.

Light Requirements: Full sun to light shade.

Flower Color: Blue, about 3/4" wide; Showy during peak flowering periods.

Flowering Season: All year; sporadic.

Fruit: Orange-yellow capsule, splitting open to expose black seeds with red arils.

Wildlife and Ecology: Provides food and cover for birds. Larval host plant for lyside sulphur (*Kricogonia lyside*) butterflies. Attracts bee and butterfly pollinators. Catbirds and mockingbirds eat the seeds.

Lyside Sulphur (*Kricogonia lyside*)

This uncommon butterfly can be found in North America, the Caribbean, and South America. In seasons with heavy monsoons, it is seen in massive migrations, which are frequent in Texas. It is also an occasional resident in southern Florida. It has a wingspan of 1.5 to 2.4 inches.

The lyside sulphur's appearance is variable. The upperside of the wings is pale yellow, usually with a black bar on the leading edge of the hindwing and a bright yellow patch near the base of the forewing. Some individuals also have black borders along the costa and apex of the forewing. The underside of the wings varies from a green-



ish color to bright yellow to almost white. Greener individuals have a whitish vein in the center of the hindwing and a bright yellow forewing basal patch.

Similar species in the lyside sulphur's range include Queen Alexandra's sul-

phur, the cloudless sulphur, and the statira sulphur. Queen Alexandra's sulphur has more yellow on the underside of the forewing and a whitish spot in the center of the hindwing. The cloudless sulphur is larger and much more yellow. The statira sulphur has a more yellowish upper side and the underside of the wings is pale greenish to white with females having light pinkish markings.

The larva is highly variable, ranging in color from grass green to blackish green. It may have markings or may be unmarked. Marked individuals usually have dorsal and spiracular silvery stripes. It is the only caterpillar to feed on plants in the family Zygophyllaceae.

Gardening Best Practices

Florida Friendly Landscaping

by Laurie Brooks

Begin practicing the nine principles of Florida Friendly Gardening and have your yard certified as a gold or silver Florida-Friendly Landscape when you have met the requirements. You can learn about these requirements by attending one of our master gardener plant clinics here at the clubhouse on the third Wednesday each month from 9 am until noon. Here are the principles to follow to help preserve our fragile island and reef ecosystem:

1. Right Plant, Right Place

You wouldn't put a goldfish in a bird cage, would you? All plants both native and non-native have their own individual requirements for water, light, nutrients, and space. Thinking about these requirements and planning your garden and landscape accordingly will both save plant lives and reduce your garden workload! Using native plants as much as possible will reduce watering and fertilizing as these plants are accustomed to our climate and soil conditions. Remember water is a scarce resource here in the Keys and fertilizer that ends up out on the reef is not good for our corals. Giving shrubs and trees adequate space to grow and keeping them away from building foundations and utility lines will also reap benefits down the road.

2. Water Efficiently

This one seems fairly self-explanatory, but a few suggestions are in order. Remember that even natives when newly planted need more frequent watering to help their roots get established. Choose lawn and ground cover plantings that are drought resistant. Water before 10 in the morning or after 4 in the afternoon to avoid the heat and evaporation. Use water wands to put the water at the base of the plant – sprinklers that wet leaves also lose a lot of water to the air. Pay attention to community water restrictions and guidelines. Collect rainwater runoff if possible and even recycle the water that comes from your AC unit.

3. Fertilize Appropriately

This is a current hot topic here in the Keys and local ordinances are pending. Most native plants need no fertilizer and judicious use of fertilizer on lawns and non-native plants will save money and the environment. Use slow-release fertilizers and learn about fertilizer components so that you are giving your plants only what they actually need.



4. Mulch

Mulch, mulch and more mulch (2-3 inches)! It builds your soil as it breaks down, inhibits weeds and reduces water loss. Don't use Cypress mulch it is not sustainable. Don't volcano mulch – keep mulch away from tree trunks.

5. Attract Wildlife

Who doesn't want to see beautiful birds and butterflies? Provide water, nectar plants, berries and seeds and host plants for caterpillars.

6. Manage Yard Pests Responsibly

This includes harmful weeds as well as insects, snails and iguanas. Herbicides are also pesticides. Pull those weeds and hand pick off the bugs. Use minimally harmful substances only when absolutely necessary.

7. Recycle Yard Waste

Leave those grass clippings on your lawn and save on fertilizer. Fallen leaves make great free mulch and can be added to compost bins to provide the necessary brown elements to help decompose your green cuttings and kitchen waste (only vegetable matter no meat, fats or dairy – but don't forget to include coffee grounds and filters, and tea bags).

8. Reduce Stormwater Runoff

Keep it in the ground – mulch helps with this. Install rain barrels or cisterns.

9. Protect the Waterfront

We live on an island! All of the above will help protect our fragile island and reef ecosystems but if you live directly on the water you have a special obligation to protect your local water resources whether it is a wetland or a canal be sure to know what additional precautions you should take.

Want to know more?

Much more detail on each of the above can be found in *The Florida Yards & Neighborhoods Handbook* available from the University of Florida IFAS Extension or by talking to your Master Gardeners. The website can be found at the following link: [Florida-Friendly Landscaping™ - UF/IFAS Extension \(ufl.edu\)](http://Florida-Friendly-Landscaping™-UF/IFAS-Extension(ufl.edu)). The handbook can be downloaded from the following link: [The Florida Yards & Neighborhoods Handbook 2015 \(ufl.edu\)](http://The-Florida-Yards-&-Neighborhoods-Handbook-2015(ufl.edu)).

A Changing Landscape in Subterranean Termite Control

by Michelle Leonard-Mularz

This is a summary of a recent presentation by Dr. Thomas Chouvenc on the importance of termite colony biology on control methods

Termites evolved from cockroaches 150 million years ago. There are now over 3,000 termite species worldwide, yet only 3 percent of the overall diversity are pests. They have extremely important roles in subtropical and tropical ecosystems, decomposing wood and other forest litter, and returning those essential nutrients and carbon stored within the dead wood back into the cycle for soil enrichment. That alone is a worthy designation. However, for all the amazing benefits termites provide in the natural environment, there is a zero-tolerance policy once they enter our homes. A mature Formosan subterranean termite colony can consume about 300 pounds of wood per year.



Asian subterranean termite soldier (*Coptotermes gestroi*).
Credits: T. Chouvenc, UF/IFAS

Current Situation

In Florida, we have the highest diversity of termites in the United States. There are 21 different species of termites in Florida, and two of the most damaging termite pests occur in south Florida, Formosan subterranean termites, *Coptotermes formosanus*, and Asian subterranean termites, *Coptotermes gestroi*. Within six months of an infestation, structural damage of a home can occur because of the sheer size of the colony. Subterranean termites have large underground colonies, often in the millions, with a central nest where the king and queen reproduce and brood are maintained by young termites. Termite workers go out and forage for new food sources, often very far, up to 300 feet, from the central nest, through an underground tunnel system. They need to maintain a moist environment and cannot survive without water. Subterranean termites attack wood that contacts the soil and build mud tubes or tunnels, to maintain moisture, and reach wood in structures and trees away from the soil surface. So, if a subterranean infestation is discovered in a home, it is only a small portion of the entire colony, which is why

we do not fumigate for such subterranean species. Structural fumigation is used against drywood termites, which colonies often infest a single piece of wood.



Subterranean termite mud-tubes on a tree.
Credits: T. Chouvenc, UF/IFAS

What has recently been discovered, is these invasive subterranean termites are also killing living, healthy trees in the urban south Florida environment. In most cases, the termites feed on the wood or old xylum tissue deep within the tree, not on the live vascular tissue, so the tree appears to be healthy until it collapses on its own weight or when a tropical storm or hurricane passes. One of the ways to detect the early presence of invasive subterranean termites is to regularly inspect trees surrounding structure and look for termite activity, often noticeable by the presence of mud tubs on the bark or at pruning wounds. Knowing if these species are established in your area is also an important, as it tells if you are in an area at risk of infestation. The current distribution map of termite pest species is accessible at <https://flrec.ifas.ufl.edu/termites-in-florida/termite-distribution/>.

Termite Biology

Termites are eusocial insects, like ants and bees, that live in massive colonies with cooperative care of the young, overlapping generations, and a reproductive division of labor, meaning only a few members of the colony reproduce (king and queen). However, they differ from ants and bees, in that they are hemimetabolous, which means the immature insects look like miniature versions of the adults and do not have to go through metamorphosis. So, termite workers, which are sterile, will continue to molt throughout their life

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until they die. Interestingly, they do not molt at the foraging sites due to lack of care and protection in these environments and return to the central nest to be cared for by nurse termites (young workers) during the molting process. This has become a very important aspect in understanding their biology and adapting control practices based on new technologies.

Control

Traditional subterranean termite control involves the use of liquid termiticides and still represents a significant portion of all subterranean termite treatments in the United States. The goal of these treatments is exclusion from the home through a chemical, insecticidal barrier around the structure, killing organisms that encounter the barrier before they enter the home. These products are mostly non-repellent, meaning they are undetected by the termites, and are broad-spectrum insecticides, so they are not only going to kill termites on contact, they will kill any insects that come into contact with the treatment area. Additionally, most liquid termiticides are non-persistent and break down in the environment within a few years. In recent years, more and more pest control operators have been reporting failures with liquid termiticide treatments of Asian subterranean termites according to Dr. Thomas Chouvenc, as cumulative evidence suggests that such subterranean termites may eventually find a way to bypass the treatment through strong foraging pressures.

Newer technology involves the use of Chitin Synthesis Inhibitor (CSI) Baits placed around the structure or home. The goal with CSI baits is colony elimination. Chitin Synthesis Inhibitors work by preventing the formation of chitin which is needed to form an insect's exoskeleton. So, the insects grow normally until it is time to molt, and the inhibitors prevent the new exoskeleton from forming properly and the insect dies, usually around 40 days after ingestion. These insecticides are targeted for consumption by termites only and a minute amount of pesticide is used in comparison to liquid termiticides. So, termite workers forage and feed on treated wood baits, return to the main nest, and share the food (carrying the active ingredient) with the brood and the rest of the colony through trophallaxis (a food exchange process common in social insects). Colony elimination is usually achieved within 90 days after the initial feeding on the bait.

A study by Dr. Nan Yao Su in 2005 looked at distance as a parameter for understanding termite control. In a laboratory experiment with about 10,000 foraging

termites and 150 feet of tubing used as the foraging system, Dr. Su found termites within 10 to 15 feet of a commonly used liquid termiticide treatment died within one week. However, beyond that, the colony was not affected, and the remaining termites closed the tunnel system to separate themselves from the area with termite mortality. So, what is happening, according to Dr. Su, is secondary repellency in the treated area due to rapid death by those exposed to the liquid termiticide. Later, Dr. Chouvenc replicated the study with whole termite colonies, containing reproductive adults, brood and different aged individuals and effectively achieved colony elimination within three months with small amount of CSI bait formulation. His study confirmed what Dr. Su found, which was secondary repellency occurs with liquid termiticide treatments because the death of exposed termites occurs so rapidly, living termites can seal off the area with termite mortality and can use other means to access structures.



Asian subterranean termite alate (*Coptotermes gestroi*).
Credit: T. Chouvenc UF/IFAS

Dr. Thomas Chouvenc believes these recent discoveries and the more we continue to learn about termite biology, will continue to change the way we control these destructive pests moving forward. Asian subterranean termites start swarming in early March in south Florida. This is a good time to go around and inspect trees for mud tubes and other signs of termite activity to help detect termite infestation.

For more information on the studies mentioned in this article:

- Subterranean Termites Feeding on CSI Baits for a Short Duration Still Results in Colony Elimination: <https://academic.oup.com/jee/article/110/6/2534/4563823?login=true>
- Response of the Formosan Subterranean Termites (Isoptera: Rhinotermitidae) to Baits or Nonrepellent Termiticides in Extended Foraging Arenas: <https://academic.oup.com/jee/article/98/6/2143/2218430>

Mosquitos and Their Control

Source: UF/IFAS

The UF/IFAS website has a very detailed downloadable document that covers the most troublesome species, conditions that attract them, and methods to reduce breeding and the likelihood of mosquito bites. The following is a very brief synopsis of the document, which can be found at edis.ifas.ufl.edu/in1045.

Mosquitoes are two-winged flies that live everywhere except areas that are permanently frozen. Globally, there are about 3,500 species of mosquitoes, and about 80 species occur in Florida.

Homeowners who actively participate in reducing mosquitoes around the home can help decrease pesticide use, reduce the risk of contracting mosquito-borne diseases, and help ease the financial burden to local governments who are responsible for area-wide control. Modern mosquito control for the homeowner has to be an integrated pest management (IPM) program, utilizing a combination of methods that emphasizes source

reduction, eliminating areas where mosquitoes thrive whenever possible.

The five “Most Wanted” species are shown in the table below. Mosquitoes are attracted to:

- Damp or humid areas
- Dark, shady areas
- Standing water
- Carbon dioxide (breath)
- Warm temperatures






Most female mosquitoes need blood to nourish their developing eggs. After feeding on blood, the female mosquito needs to find a resting spot while her body digests the blood, which can take up to three days. She looks for dark, shady, well-protected areas to rest, to avoid being eaten, and to stay warm and humid.

Source Reduction is the most important technique that homeowners can employ to reduce mosquitoes. Since mosquitoes need water to live, removing water sources around the home goes a long way to prevent mosquitoes from occurring. Essential mosquito control tips for homeowners:

- Clean out eaves and gutters.
- Drill holes in or remove old tires.
- Turn over empty plastic pots.
- Check tarps on boats and equipment for standing water.
- Pump out bilges on boats.
- Replace birdbath water once a week.
- Empty water in plant trays and hanging baskets once a week.
- Remove vegetation or obstructions in drainage ditches that prevent water flow.
- Clear out thick brush to increase airflow around the home.

There are many gimmicks for sale that do not work, so be an educated consumer and don't waste your money on impulse buys! Some items that are not effective for reducing mosquitoes:

- Mosquito plants
- Bug zappers
- Consumption of garlic, vitamin B, and bananas
- Repellent bracelets and wristbands
- Ultrasonic devices
- Cell phone apps
- Dragonfly mimics

Name	Where Larvae are Found	Associated Diseases	Photograph
Yellow fever mosquito, <i>Aedes aegypti</i>	Water-holding objects around the home and yard, such as flower vases, tires, toys, bottles, conch shells, cans, refrigerator drain pans, barrels, bromeliad plants, and other containers	Dengue, chikungunya, and Zika viruses	
Asian tiger mosquito, <i>Aedes albopictus</i>		Dengue, chikungunya, and Zika viruses	
Southern house mosquito, <i>Culex quinquefasciatus</i>	Aquatic habitats, especially those with high organic content, including catch basins, ditches, containers, dairy lagoons, etc.	Dog heartworm, St. Louis encephalitis virus, West Nile virus	
Black salt marsh mosquito, <i>Aedes taeniorhynchus</i>	Salt marshes	Dog heartworm, St. Louis encephalitis virus, West Nile virus	
Gallinipper, <i>Psorophora ciliata</i>	Ditches, containers, grassy pools, furrows of citrus groves, pasture areas	Not known to cause disease, but one of the largest species, nicknamed for “taking a gallon of blood” when they bite	

Our Recent Workday Made a Big Difference!

By Charlene Regenhardt

A hearty THANK YOU to our members and the REEF interns who helped cleanup the property on February 20, 2021. The perimeter of the property looks much more natural and now blends in with the adjacent native hardwood hammock. It is aesthetically more pleasing, and better for wildlife as well. We are hopeful that removing some of the many bromeliads along the edge of the property helps to reduce the mosquito population!

Members who came to join in included:

- Kathy Janco
- Laurie and Don Brooks
- Laura and Fred Hartner
- Anne Makowski
- Deb Riolo
- Nancy Perez
- Pat Saunders
- Jenny Crittenden
- Darlene Rota
- Phyllis Daniels

A very special thanks to the interns at REEF who gave up their Saturday morning, first to work at REEF and then to help at our garden club! Shown in the photo left to right, they are:

- Sierra Barkdoll
- Summer Huber
- Mikayla Carrier



Unfortunately, I didn't get a picture of Pat Saunders and her daughter Jenny Crittenden, who hauled at least six pickup truckloads of bromeliads off the property (maybe more, I lost count)! THANK YOU Pat and Jenny!



Deb Riolo and REEF interns Sierra, Summer, and Mikayla taking a break and sampling snacks provided by Darlene Rota and her Mom



Don Brooks fixing the red wheelbarrow. The old wheel was perpetually flat and needed to be replaced.



Kathy Janco, Laura Hartner, Darlene Rota, Charlene Regenhardt, and Phyllis Daniels taking a breather at the Philodendron bed seating area.

Before (left) and After (right) Photos



Removing the bromeliads and invasive oyster plants along the western edge of the property provides room to use the space as a staging area for new plants, that can be protected with the crop cage to prevent iguanas from disturbing them.



Removing the large bromeliads along the northern edge of the property provides a transition from our property to the natural hardwood hammock. It looks more natural and aesthetically pleasing and should benefit wildlife as the area fills in with native plants.



Notable Dates and Birthdays

A warm birthday wish to our members with March birthdays!

March

- Lynn D.
- Eleanor W..
- Jeanine S.
- Suzy C.
- Ellen B.
- Edna W.
- Carol S.
- Anne M.



Upcoming meetings and club activities:

March

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

9	GCUK Board Meeting (10 am)
16	GCUK General Membership Meeting (Zoom, 11 am)
16	Florida Native Plant ID Class (Zoom, 5:30 pm)
17	In-person Monroe County Plant Clinic at Francis Tracy Garden Center (9 am to 12 pm) AND Garden Get-Together: Plant Bed "primer", (12 to 1:30 pm)
20	REEF Workday (10 am)
20	GCUK Workday (11 am)
31	Garden Get-Together: Basket making (10 am)

April

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

13	GCUK Board Meeting (10 am)
20	GCUK General Membership Meeting out-doors at The Francis Tracy Garden Center (11:00 am)
20	Florida Native Plant ID Class (Zoom, 5:30 pm)
21	In-person Monroe County Plant Clinic at Francis Tracy Garden Center (9 am to 12 pm)
17	REEF Workday (10 am)
17	GCUK Workday (11 am)
29	Cooking for God's Kitchen (TBD)

Looking Forward...

- **Board meetings** at 10 am on Mar 9, Apr 13, May 11
- **General Membership meetings** on Mar 16, Apr 20, May 18. Meetings begin at 11 am; If held in the clubhouse, doors open at 10 am for social time.
- **Next Years' Fundraising Event** dates have been set. The Gingerbread Craft Market is scheduled for November 27, 2021 and the Garden Walk is scheduled for February 19, 2022.

Out & About at Francis Tracy Garden Center

Every time I stop by our clubhouse property, I see something new and/or improved. Most of the improvements are the result of our hard working members working on various garden beds they adopted. The Song of India bed is beautiful! The small circular bed around the Tamarind towards the south side of the clubhouse was reconfigured into a wedge-shaped bed (to allow more parking space) and planted with native rougeberry. I've attached photos of those gardens, and a couple of our blooming orchids.



The Song of India Bed, was cleaned up and mulched by GCUK members Pat Saunders and Jenny Crittenden. It hasn't looked this good in years!



Some of our orchids are blooming. The first (above) is easily spotted growing in the palms near the Philodendron bed. You will need to take a walk through the hammock area towards the north-eastern portion of the property and look up into a gumbo limbo tree to spot the second one (below).



The Rougeberry Bed was cleaned up and newly planted by GCUK member Lonell Rice. Lonell selected this Florida native because it grows happily in shaded areas and blooms nearly all year long. Pollinators are attracted to the flowers and its bright red seeds are prized by mockingbirds. The new plants are small right now, but they grow quickly.



Resource Links

Topic: Plantsmap

Description: Plantsmap is the host website for our growing database of plants at the Francis Tracy Garden Center. The biological markers that we plan to purchase under the TDC grant will be linked to the website via QR codes.

Link: [Organization Garden Club of the Upper Keys | Plants Map](#)

Topic: Florida Keys Native Plant Workshop

Description: Laurie Brooks is hosting the Zoom meeting on Tuesday, March 16 from 5:30 to 7 pm.

Link: <https://us02web.zoom.us/j/4526147402?pwd=RCtIMU5pbENhZk4yd1VvaHRpMG50QT09>

Meeting ID: 452 614 7402; **Passcode:** 123456

Topic: Institute for Regional Conservation (IRC) and Natives for Your Neighborhood

Description: Natives for Your Neighborhood provides a wealth of information about natives in South Florida.

Link: [Butterfly Gardening for South Florida \(south-florida-plant-guide.com\)](#)

Topic: South Florida Plant Guide Website

Description: Information on plants that thrive in South Florida (many are not native, and some may be considered invasive, so use caution when using this resource)

Link: <https://ediblesouthflorida.ediblecommunities.com/eat/growing-spices-and-herbs-south-florida>

Topic: Insects

Description: The UF/IFAS Entomology Department's "Featured Creatures" series of articles provides information about hundreds of insects, indexed by common and scientific name, as well as other search categories

Link: [Featured Creatures \(ufl.edu\)](#)

Topic: Insects

Description: Website providing identification guide for common insects in Florida.

Link: <https://floridahikes.com/insects-in-florida>

Topic: Insects

Description: Interesting articles and activities related to a past "Bug Week" for both adults and children.

Link: <https://Bugs/ufl.edu>

Topic: Insects

Description: Useful insect identification guide. The menu has options to help identify various insects by category or by state.

Link: <https://insectidentification.org>

Books available on Amazon

- Insects and Gardens: In Pursuit of Garden Ecology (2001) by Eric Grissell and Carll Goodpasture
- Garden Insects of North America: The Ultimate Guide to

Backyard Bugs (2017) by Whitney Cranshaw and David Shetlar

- National Wildlife Federation Field Guide to Insects and Spiders & Related Species of North America (2007) by Arthur V. Evans
- Attracting Native Pollinators: The Xerces Society Guide, Protecting North America's Bees and Butterflies (2011) by the Xerces Society
- Guide to Florida Insects (1988) by Robert Anderson

Ufl.edu documents:

- ENY-476/VH036: Insect Management in the Home Garden
- ENY-1000/IN758: Insects, Oh Yes!: An Introduction

Native Plant Nurseries

Plantrealfloida.org lists retail native plants, on-line or mail order nurseries.

Casey's Corner Nursery & Landscaping (Call first)
31877 SW 197 Ave. Homestead, FL
(305)248-7284

Green Genes (by appt. only)

Homestead, FL

(409)659-5693

Dianelockwood24@gmail.com

Plant Creations (open Monday through Friday)

28301 SW 172 Avenue, Homestead, FL 33030

(305) 248.8147

www.plantcreations.com; natives@plantcreations.com

Veber's Jungle Garden, Inc.

24605 SW 197 Avenue, Homestead, FL 33031

(305) 242-9500

www.vebersjunglegarden.com

Key West Tropical Forest and Botanical Garden (Monthly plant

sale, Third Saturday, 10 AM to noon

5210 College Road, Key West, FL 33040

(305) 296-1504

<http://www.kwbgs.org>; info@keywestgarden

Alexander Landscaping

910 S. Flamingo Road, Davie, FL 33325

<http://www.alexfarm.com>; alexfarm@comcast.net

SeaShore Seeds (by appt. only)

102 Rock Harbor Dr. Key Largo, FL 33037

Contact: Deb McCoy seashoreseeds@gmail.com

(305) 393-8695

The above list of vendors is for the convenience of our members but does not imply endorsement.

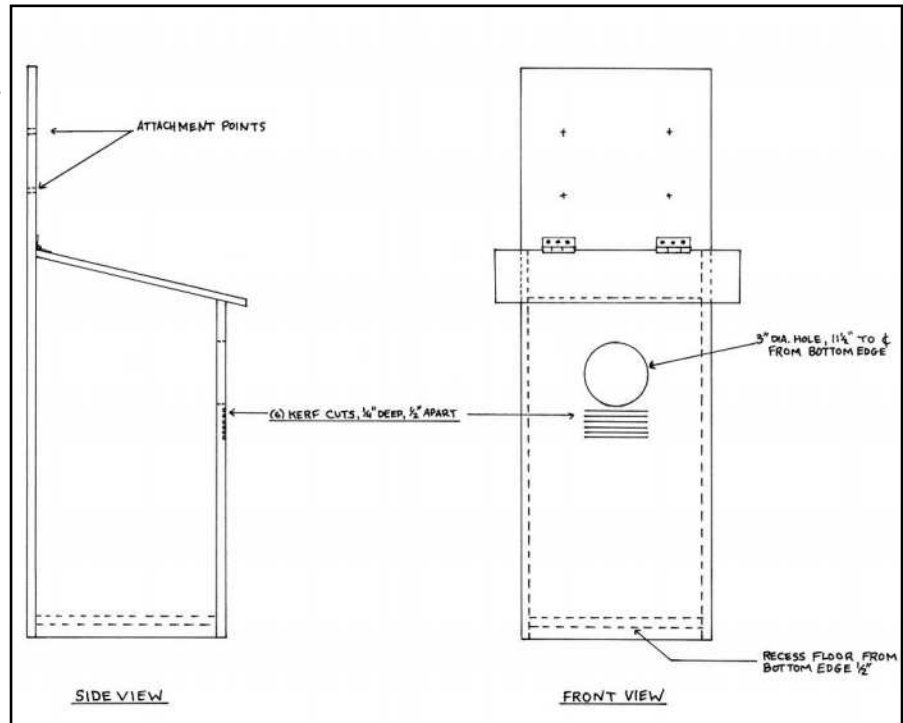
How to Make a Screech Owl Nesting Box

Eastern Screech-Owls reside year-round primarily east of the Rocky Mountains. These diminutive owls are about 9 inches tall with 20-inch wingspans and strongly barred underparts. Females are slightly larger than males.

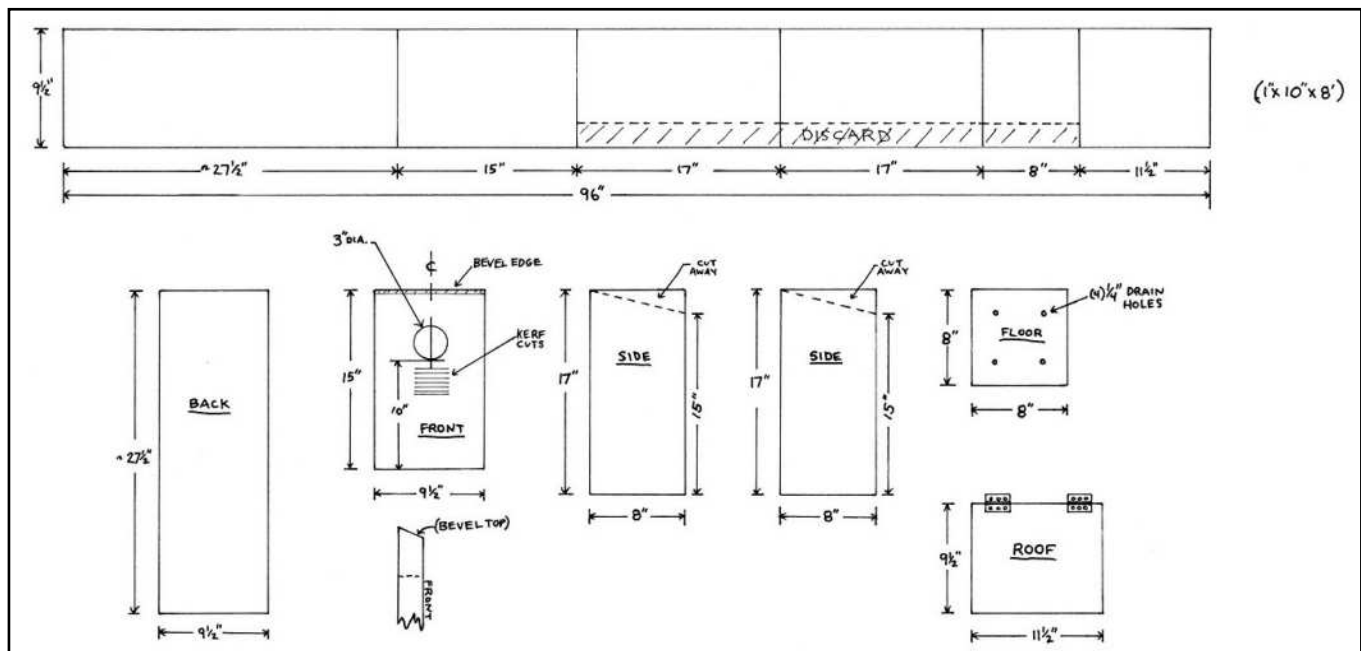
Although Eastern and Western Screech-Owls closely resemble each other, the bills are yellow-greenish in eastern owls and black in western owls. Eastern owls are gray or reddish brown; western owls are gray or brown.

Eastern Screech-Owls begin nesting in February in southern states but may wait until July in far northern habitats. Provide birdbaths for drinking and bathing and nest boxes for seasonal nesting, as well as for roosting and storing year-round.

The Full Audubon Article can be found at the following link: [How to Build a Screech-Owl Nest Box | Audubon.](#)



Side and Front View of Nesting Box



The box can be made from a single 8-foot 1" x 10" board plus a few screws and two hinges. The diagram above shows the dimensions of each piece. The front piece will need a circular hole and some "kerf cuts" to make it easier for fledglings to exit the box. Although the article shows the kerf cuts on the exterior, the comments following the article indicate that the cuts should be on the interior of the box, and that a small piece of hardware cloth can be used instead of making a series of cuts.