Rooftop nesting birds: biology & management

Least Terns (most common, most work)

Black Skimmer (less common, less work)

American Oystercatcher (less common, less work)

Killdeer, (rare, no work)

Beth Forys, Eckerd College, St. Petersburg, FL along with many other people!
Least Tern

- Small
- Colonial nester
- Eats fish
- Migratory
- Frequent rooftop-nester
- Chicks fall off of rooftops
Black Skimmer

• Larger
• Colonial nester
• Eats fish (mainly at night)
• Not migratory in FL
• Fewer nest on rooftops
• Chicks less likely to fall
American Oystercatcher

• Solitary nester
• Eats clams, oysters, etc.
• Not migratory in FL
• A pair nests on a rooftop
• Lays 2-3 eggs
• When young are about 3 weeks old, adults “encourage” them off of roof
Natural Nesting Habitat

- Wide beach
- Preferably on barrier island: less predators
- Bare or with short, sparse vegetation
Least Terns return from South America in April and begin courting. Black skimmers begin courting usually in May. Oystercatchers start to lay eggs in March.
American Oystercatchers lay 2-3 eggs in April/May
Least Terns lay 2-3 eggs in May/June
Black Skimmers lay 3-4 eggs in June/July
Undeveloped open beach is becoming a rarity throughout the U.S.
Artificial Nesting Habitat

- Dredged spoil islands
- Remains from phosphate mining
- Gravel rooftops (southeast US)
• 1998-2000, Florida Fish and Wildlife Conservation Commission conducted a state-wide survey of rooftop nesting birds

• Statewide Results--for the Least Terns, the roofs support:
  
  75% of colonies
  
  83% of nests

• 2010 study found that the majority of nests are still on rooftops, but the numbers have declined
During the past 11 years Least Terns have nested on 120 rooftops in Pinellas County, but gravel rooftops are declining.

Research we’ve done showed that productivity (fledgling/pair) is higher on rooftops than ground colonies, but productivity is too low to support the species.

So, what to do next?
• Monitoring
• Research
• Management
How to design a rooftop management and monitoring program

• Summary (more depth in slides to follow):
  – Recruit volunteers (local Audubon chapters other environmental groups – it doesn’t take much knowledge)
  – Look for occupied rooftops (advertise to local Audubons, bird listserves, etc.)
  – Let building owners know about birds
  – Monitor rooftops according to Florida Shorebird Alliance
  – Enter data into FSA shorebird database
  – If chicks are falling, organize volunteers to check parkinglot for chicks and see if you can put chick on the roof
Get coordinators and volunteers

Lorraine/Don
Jane & the car dealership gang

Joe's creek gang
Dave/Kim big territory

Faith, weekday warrior
Barb the incredible

High-rise Jeanne & Brian

Grocery store Bonnie

John & the Publix gang

Get coordinators and volunteers
Visit all historic rooftops and look for new ones!

FWC will set the Florida-wide survey windows. You visit each rooftop that has ever had birds nesting once during each window.

- April 15-21
- May 13-19
- June 10-16
- July 8-14

It is good to check the property appraiser website every few years and make sure roof is still gravel!
Disturbance Counts

Survey each rooftop in the evening, and wait until there is a disturbance. Try and count (or photograph) all the birds you see. We generally DO NOT go on rooftops unless you can observe birds from a safe distance.
Enter data into FSA database
https://public.myfwc.com/crossdoi/shorebirds/
Provide information to building owners/managers

Their rights:
- they can tell you not to go on their property
- they can put something on their rooftop to discourage birds AFTER nesting is over

What they can’t do:
- they can’t hurt the birds or prevent them from nesting once the first egg is laid
- they should contact you before doing work on the rooftop
Dear Building Owner/Manager:

This might sound odd, but you have some protected birds nesting on your rooftop. If left undisturbed, the birds should be gone within 3 months. These birds should be nesting on undisturbed, open areas of our beaches, but these beaches are so crowded the birds have chosen your gravel rooftop in an attempt to survive.

While the birds are on your roof, please do not go on the roof unless you have an emergency (roof leak, air conditioner repair). If you need to go on the roof, it would be great if you would call me: Beth Forys, Professor of Biology, Eckerd College (forysea@eckerd.edu, 727-864-7880, 727-254-6400) or Nancy Douglass, Regional Biologist, Florida Fish and Wildlife Conservation Commission (863-648-3205) OR Brie Ochoa, Assistant Regional Biologist, Florida Fish and Wildlife Conservation Commission (863-648-3200) and we can help monitor the birds while you are making your repairs. If you find any chicks on the ground, please call us as well.

There are three species of birds that could potentially nest on your roof. You have (the bird(s) whose names are circled) nesting on your roof:

Least Tern - State Threatened  
*(photo by Dave Kandz)*
Having Least Terns nesting on your rooftop can be inconvenient.
Do anything you can to help make rooftop owners/occupants feel important.

Huge public education campaign.

This was a little extreme, but worked wonders!
Determine if you need chick-checkers

Only for Least Terns do you need chick checkers

High lip, no downspouts for chicks to fall down, probably only need to stop in once/week and make sure everything is OK and MAYBE stop by during fledgling
No lip or little lip, birds on eggs for 3 weeks: start checking!

Least Terns usually incubate for 3 weeks and then it is another 3 weeks until chicks can fly.
Sometimes you know chicks are hatching (and could fall) if you see an egg shell.
Look in every corner, underneath anything higher than 1 inch, in grass, in downspouts

This chick is under 1 week old, it can walk, but does not run fast. It can be caught in your hand and then put in a cardboard box with a towel. (NOT PLASTIC, TOO HOT)
It is good to check as often as possible (3 to 7 times/day)
Fledglings often can fly horizontal, but not vertical, a net is helpful
We have found that chicks put back on a roof have a greater success of surviving until migration than chicks given to a rehabber.

Please let us know if you see any of our banded birds!
Try and get chick back on roof: trap door (with permission), chick-a-boom if no other good access
If you really want to know what is going on up on a rooftop, there are some options...

Bucket Lift (about $200/day)  
Camera on a pole – ask Dave Kandz
If you have a rooftop that was very productive or occupied several times and a friendly owner/manager, you might want to make the roof better for the birds.

Putting up chick fences (best if you can have the owner or roofer do this)

Hardware cloth (never chicken wire) over downspouts, make sure chick can get out of gutter.
Last step: Feel good about what you are doing. rooftops monitoring and management produces birds for the future.