

Abstract

This report will account for the observations and steps taken to preserve and protect the nesting and rearing of young by the Sea-and Shorebirds of St. Vincent Island National Wildlife Refuge (SVR) funded by Early Restoration Funds. February through August various sea-and shorebirds migrate and nest on SVR. Count surveys are done once per month during a set number of days lasting approximately five days during the migration and nesting season. Specific attention was paid to the Least Tern (LETE), Black Skimmer (BLSK), Snowy Plover (SNPL), Wilson's Plover (WIPL) and the American Oystercatcher (AMOY). Of the birds listed the BLSK was the only bird not noted in the count surveys though they were observed on SVR daily. There were no nest observations for the BLSK and AMOY but there was a juvenile AMOY noted during a survey.

Introduction

Since the disruption to Sea-and Shorebird nesting during Deepwater Horizon, (DWH), at SVR, there have been clean-up efforts to restore a unspoiled and somewhat peaceful area for reproduction and resting during migration (Stiaes, 2011).

Symbolic fencing was added using two inch plastic PVC poles with T-tops that are placed at the top of the post in order to connect them using paracord. There are no guarantees, however, where the birds will colonize or nest but best guess practices observed from previous years or surveys are helpful. The SNPL and WIPL's are commonly predictable in their preferred solitary nesting habitats but the LETE's are marginally diverse in my experience. The symbolic fencing has to be adjusted on a regular basis throughout the season and at the end of the season with the rise and fall of the tides determining posting placement.

It appears as though a minimum amount of beach has been utilized in the past in order to give our visitors more space for beach activities. The LETEs have determined, by expanding past the original symbolic fence in some areas, that they need a larger nesting habitat. These areas of overflow have been expanded to accommodate larger colonies. The expanded areas include more shell hash, which is the preferred nesting habitat for LETEs. The first colony of LETE since 1968 was noted in June 2014 at Sheepshead Bayou. This is, potentially, a great piece of ground for breeding since it is less tainted with foot traffic though visited by recreational boaters. It is hypothesized that, if we allocate enough protected territory from anthropogenic effects, we can then maintain established colonies so nesting sea-and shorebirds of concern can reproduce successfully.

Most areas were previously posted but had to be adjusted or posts had to be replaced. The areas partitioned were composed of the typical nesting preferences of sea-and shorebirds. These areas consisted of dunes and sandy beach areas that contained shell hash with and without scant or heavy vegetation.

During the survey the colony or solitary bird was located and steps were taken to ensure an accurate count of nests and avian predators. During each survey a standard form was filled out for recording data. The following information was required: the name of the route and the name given to the site, the observers of the site, date, start and ending times, how the space was posted, (with or without signs and posts), the status of the activity level of the nest, the final outcome of the nest if known, and the number of each species present. There was a section on the data sheet for optional information about the location. A hand held Garmin GPS unit was used to mark and record the position. It was also noted if an individual bird had been banded, the color of the band(s), and which leg and location of the band. When the website was available the data was entered into the Florida Shorebird Database.

Results

According to data from the bird survey there was a typical rise and fall in the number of birds each month, (table 1). The SNPL adult numbers peaked in May with twenty-one recorded adults. The AMOY peaked in August with twenty-six adult birds. Both the LETE and the WIPL peaked in July with two hundred fifty-seven and seventeen adult birds, respectively. There were no BLSK noted on the specified survey dates but there were BLSK on the island, (figure 3).

Great care was taken when nests were located and photographed, (figure 4, and 5), during the surveys. There were several colonies observed from Indian Pass point to Sheepshead Bayou throughout the survey months. There was a new LETE colony discovered on Sheepshead Bayou in June 2014, (figure 6). After quickly posting the area with wooden stakes and signs they were just as quickly broken and pushed over, (figures 7 and 8), along with obvious marks where kayaks had been drug on land, (figures 9 and 10). The site was eventually abandoned by the colony, (figure 11), however, at least one chick was hatched and fledged though there was more than one nest noted with eggs. That chick was not noted during any survey so the outcome of that chick is unknown.

Also observed, were empty scrapes seen just east of Rio Road, where a colony of LETEs were nesting and had abandoned the site, (figure 12). In this location there were many tracks from various animals, (figures 13 14, 15 and 16). Following the shorebird survey, however, there have been countless LETE juveniles observed but not just in this one area.

Discussion

When passing Road 1 to the east of Road 2 the symbolic fencing has been moved beachward so there is adequate room for the birds to nest, (figure 20), and still plenty of room for tourism. There are occasional birds nesting and foraging between Road 2 and Road 4, which is surveyed each month, though not active enough for fencing. Although there were no nests in this section for 2014 there has been plenty of activity, (figures 21, 22, 23, 24, 25 and 26).

The second half of the survey takes place at Road 4 which will take us to the west side of Oyster pond outlet. On most occasions there will be SNPLs and WIPLs in the area closest to the outlet. The symbolic fencing here was moved forward as well since the vegetation seemed to be getting closer to the water's edge and there are rarely visitors in this area. Based on information given WIPLs like to nest where there is sparse vegetation and though they are seen regularly in this area nests have not been found. There is not an abundance of ghost crabs in this area but there are copious amounts of Ferrell hog tracks.

A new spit formed east of Oyster pond inlet this season and a LETE colony was supported here until a particularly heavy rain period occurred. Various birds came back to the spit to rest and forage but did not colonize again. Also, east of Oyster pond inlet, there is a protected area that was expanded beach-ward because there is a large amount of shelled habitat that will be great for a LETE colony. When originally moved there was a lot of beach area between the fence and water's edge. Since that time the beach has narrowed to the point of the poles having to be pulled so the turtle survey could be conducted, (figure 27). The fencing has been reposted, and because the beach usually widens out in the winter, it will give the LETE a great place to nest, (figure 28). This particular zone provides great nesting habitat with plenty of space as the symbolic fencing was moved seaward stretching over to Rio Road. There is an area to the southeast of Rio Road where the LETE would colonize which extended past the fence but abandoned the site for unknown reasons but possibly human disturbances. Now that the area has been expanded to include a buffer zone there is hope for fewer disturbances so

the colony can stay long enough to fledge.

Off of West Pass Road to the southwest there are mostly solitary nesters. When you travel on the beach northeast of West Pass Road there was a small colony of LETE for the last two months of the survey season that would rest and forage but never colonized. The start of Tahiti Beach Road, (figure 29), is located north of West Pass Road and narrows considerably. Tahiti beach is where the Seagulls, Gull billed terns, BLSK, AMOY, and other migrating and wintering species rest and forage and have nested in the past. Along Tahiti beach road there is sand with oyster shell beds and marsh on one side and shell road plus the bay on the other. On the marsh side of the road some of the shell beds are connected to various ponds which make great habitat for young birds, (figure 30). There has been egg observations throughout the nesting season along the beach, however, they were rare and vanished quickly. No fledglings have been noted along this stretch of beach although juveniles were later observed.

Sheepshead Bayou's colony was first discovered during the survey in June of 2014. The colony appeared newly established because it expanded after the first June observation. The site was visited several times after initial discovery to verify it was an established colony and the point could be closed for the nesting season. The colony abandoned the site before the end of the season, believed to be due to human disturbance, but there was a downy fledgling observed with five adults at the beginning of July. Therefore, there was at least one young that was fledged from the colony.

References

- Pruner, R. A. (2009). *Assessing habitat selection, reproductive performance, and the affects of anthropogenic disturbance of the Snowy Plover (Charadrius alexandrines) using spatial and temporal scale influences*. University of Florida, Department of Wildlife Ecology and Conservation.
- Stiaes, S. (2011). *Deepwater Horizon Early restoration project proposal form*. p 2-4, Apalachicola, U.S. Fish and Wildlife Services, St. Vincent Island National Wildlife Refuge.

Table 1. Bird count survey 2014

	Bird Species	Adult	Flight Capable	Feathered	Downy	Nestling	Eggs
March	LETE	42	0	0	0	0	0
	SNPL	9	1	0	1	0	3
	WIPL	0	0	0	0	0	0
	AMOY	15	0	0	0	0	0
April	LETE	0	0	0	0	0	0
	SNPL	0	0	0	0	0	0
	WIPL	0	0	0	0	0	0
	AMOY	0	0	0	0	0	0
May	LETE	0	0	0	0	0	0
	SNPL	21	0	0	0	0	0
	WIPL	0	0	0	0	0	0
	AMOY	2	0	0	0	0	0
June	LETE	142	0	0	0	0	0
	SNPL	16	3	4	0	3	2
	WIPL	12	0	3	0	0	0
	AMOY	0	0	0	0	0	0

July	LETE	257	0	0	0	0	0
	SNPL	6	5	1	0	0	0
	WIPL	17	2	0	0	0	0
	AMOY	10	0	0	0	0	0
August	LETE	92	0	0	0	0	0
	SNPL	10	12	4	0	0	0
	WIPL	5	3	0	0	0	0
	AMOY	26	1	0	0	0	0
Totals	LETE	533	0	0	0	0	0
	SNPL	62	21	9	1	3	5
	WIPL	34	5	3	0	0	0
	AMOY	53	1	0	0	0	0

Figure 1. 2 1/2" PVC poles with T-tops.



Figure 2. Fencing connected with red paracord.

Figure 3. Black skimmers

Figure 4. Snowy Plover nestling and eggs.

Figure 5. Least tern nest with egg.



Figure 6. Sheepshead Bayou.

Figure 7. Sheepshead Bayou with broken sign and kayak marks.

Figure 8. Signs broken and knocked down at Sheepshead Bayou. Figure 9. Sheepshead Bayou



Figure 10. Sheepshead Bayou with metal posts and signs closed off.



Figure 11. Sheepshead Bayou empty nest cup.



Figure 12. Empty Least tern scrape west of Rio Road.



Figure 13. Red Wolf track.



Figure 14. Ferrell hog tracks.



Figure 15. More hog tracks.



Figure 16. Raccoon tracks.



Figure 17. Brown Pelicans sharing Indian Pass point.



Figure 18. Long-billed Curlew fishing at Oyster Pond inlet.



Figure 19. Part of Indian Pass Point where some posts and all paracord was replaced.

Figure 20. Beach area between Road 1 and Road 2.



Figure 21. A pair of Wilson's Plovers resting on the beach.

Figure 22. Caspian tern taking a break from fishing.

Figure 23. Snowy plover chicks 1.



Figure 24. American Oystercatcher fishing.

Figure 25. Least tern and juvenile resting.

Figure 26. Various terns resting and fishing.



Figure 27. Had to move fencing back because of beach erosion.