COASTAL STEWARDSHIP

2021 REPORT



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INTRODUCTION



Audubon South Carolina (ASC) focuses on conserving birds and the places they need, because where birds thrive, people prosper. Our coastal work prioritizes coastal bird species and the beaches and marshes that they call home. One of the largest conservation challenges these birds face is human disturbance.

Human disturbance threatens nesting and migratory coastal birds that rely on the beach to raise their young and to refuel during their long migrations. If disturbed, nesting adults will fly off their nests leaving chicks and eggs exposed to the hot sun. Migrants that use the beach to rest and refuel can be flushed while attempting to restore their depleted energy. However, ASC's Shorebird Steward program works to combat human disturbance, particularly during peak migratory and nesting seasons (March-August).

The Shorebird Steward program began piloting coastal sites in 2016 and officially launched in 2017. The Covid-19 pandemic paused volunteer activity in 2020, but in 2021 volunteers were back out educating beachgoers about the importance of letting birds rest and nest. Stewards attend an annual training session before their volunteer shifts to learn about the basics of our coastal birds in South Carolina and the importance of education over enforcement while stewarding.

While some sites remained off-limits in the aftermath of the pandemic, stewards were still able to educate hundreds of people along the South Carolina coast. This report reflects the dedication of our stewards and partners as we work together to protect some of our most vulnerable bird species.

THE BIRDS

This program exists to conserve our vulnerable coastal bird species whose populations are threatened by ever-increasing human disturbances present along South Carolina's coast. Humans, kites, dogs and boats are all perceived as predators by birds, especially when they get too close. Their survival depends on us being aware that we should give them the space they need to rest and nest. Below are the species that Shorebird Stewards focus on.







WILSON'S PLOVER

OYSTERCATCHER

LEAST TERN

Nests in SC

State Threatened

Nests in SC

AMERICAN

Highest Conservation Priority in SC

Nests in SC

State Threatened





THE UMBRELLA EFFECT

While focusing on these 5 species, stewards indirectly protect the many other shorebirds that use the same habitat.

RED KNOT

Migratory Stopover in SC

Federally Threatened/Endangered

PIPING PLOVER

Overwinters in SC

Federally Threatened/Endangered

THE PEOPLE

Two ASC Coasts staff, Nolan Schillerstrom and Allyssa Zebrowski, worked in partnership with many others to make this year's Shorebird Steward program a success. Volunteers spent over 2,000 hours in training and on the beach educating hundreds of beachgoers. More specifics on volunteer engagement can be found on page 4, the 2021 Overview.

01. Site Leaders

Ideally, each stewardship site has a Site Leader. Leaders create a sense of community among their fellow stewards in the area. Because our stewardship sites span the coast of South Carolina, Leaders are also essential in helping volunteers navigate the logistics of each site.

02. Stewards

Stewards are trained volunteers who spend 2-4 hour shifts on the beach, educating the general public about the importance of letting coastal birds rest and nest. Following their shifts, stewards could submit reports providing data about their interactions with beachgoers, the birds they saw and any other relevant comments. They are the educators on the ground that prevent disturbances and conserve vulnerable coastal birds.

Our Partners

Our partners are the key to this program's success. While a full list of partners can be found in the Acknowledgements, shorebird conservation in South Carolina exists because of the years of hard work by our partners at South Carolina Department of Natural Resources (SCDNR) and the U.S. Fish and Wildlife Service (USFWS). Working in tandem with these two organizations has helped to guide this program to its success.

2021 OVERVIEW

Since its first official season in 2017, the Shorebird Steward program has added 7 new sites and 60 volunteers, with an impressive 271% growth rate in volunteer hours served. The economic value of 2021's volunteer time is approximately \$74,318, based on the Independent Sector's value of \$28.54 per volunteer hour. Below are more statistics from the 2021 season, including approximate number of nests protected by stewards.

01

Volunteer Data

- 95 active volunteers
- 409 people trained
- 1,786 hours of stewarding + 818 hours of training = 2,604 total volunteer hours

02

Volunteer Reports

- 15 different ASC volunteers completed 74 shift reports from 4 different sites
- Est. 1,626 people on the beach with 627 steward interactions, 99% of them positive
- 155 leashed and 54 unleashed dogs on those 4 beaches

03

Nesting and Reported Bird Data

- 183 Least Tern nests
- 30 Wilson's Ployer nests
- 5 American Oystercatcher nests
- 42 other bird species seen by volunteers including the threatened/endangered Red Knot and Piping Ployer

2016

3 Sites Piloted

2017

3 Sites

35 Volunteers

702 Volunteer Hours

2018

6 Sites

37 Volunteers

1003 Volunteer Hours

2019

8 Sites

60 Volunteers

1185 Volunteer Hours

2020

9 Sites

2021

10 Sites

95 Volunteers

2604 Volunteer Hours

VOLUNTEER INSIGHTS

Below are a few comments reported by stewards following their shifts. Comments have been helpful in improving the Shorebird Steward program throughout the summer.

01. Hunting Island

"...Great day. The family with the four dogs put them on leashes as we approached and claimed not to have seen the signs. They were friendly and polite. We started the conversation with admiration for their dogs, which did seem well-behaved. We were able to explain the need for protecting the birds and they listened and seemed to absorb the information. We pointed out that the dogs are most welcome on other parts of the beach. It seemed to be well-received."

02. Harbor Island

"Folks loved the bookmarks and we used this as conversation starters in several cases. We also saw one young man flying a kite near the Wilson's, but convinced him (he ended up thinking it was his idea) to move to a stretch of beach where his kite wouldn't entangle on posted signage string. We noted two Shibumi tents which look so much like kites, we'd be interested to know how they impact birds."

Folly Beach Lighthouse Inlet

"This morning was one of the best shifts I have ever had. Parking was not a problem with the parking pass. Lot of folks stopped and talked along with two very excited young kids who were eager to get a book mark with pictures of shore birds. I did have to ask some nice young folks to be careful while they played baseball and kickball. They were getting very close to the roped off area while playing. I was nice and so were they. They understood what we were trying to do."

04. Harbor Island

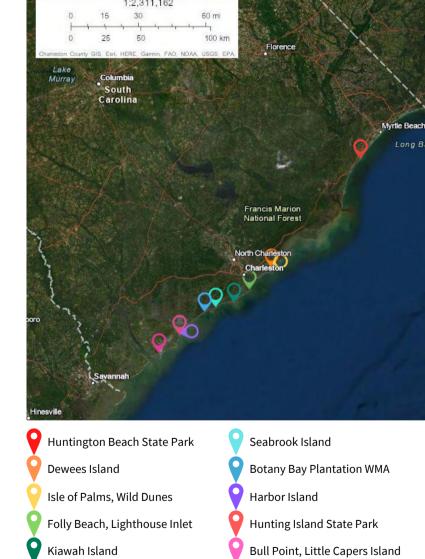
"I talked to 10 awesome folks who stopped me to ask questions. I had one bad interaction with a resident who is intentionally walking through the signed area and had twice broken the sting between the signs...no reasoning with the man so I just had to walk away. Although I did not see any Wilson's on Saturday...I did see parents and juvenile on Sunday afternoon as well as Monday morning."

THE PLACES

When the Shorebird Steward program officially launched in 2017, there were three sites: Dewees Island, Folly Beach Lighthouse Inlet, and Harbor Island. This year, ten locations hosted Shorebird Stewards with two of them, Kiawah and Seabrook Islands, being autonomous from ASC's program. This summer saw the addition of one new site, Bull Point. Restrictions at Botany Bay did not allow for volunteers until August 1st.

APPROXIMATELY 40 ACRES OF NESTING HABITAT WERE PROTECTED BY STEWARDS

Approximately 40 acres of nesting shorebird habitat were protected by stewards across all ten sites. This was calculated on ArcGIS using the area of acres that were posted and roped off by SCDNR and USFWS. The following sections will explore each site individually.



HUNTINGTON BEACH

Huntington Beach State Park is located in Murrells Inlet, SC and has been a Shorebird Steward site since 2018. The nesting area this year was approximately 5 acres and located at the north end of the park near the jetty. It was roped off with posts, as well as an electric fence. The biggest source of disturbance at this site is typically boats that shore up from Oaks Creek and may be unaware of the nesting area.



01. Site Leader

Mike Walker, among his other duties as the Lead Interpretive Park Ranger, guides stewards to and from the nesting site while ensuring that beachgoers enjoy their day in a way that's protective of the wildlife.

02. Volunteers

Ten stewards volunteered for a total of 192 hours throughout the season. The most hours served by one steward was 57 with an average of 17.45 hours per steward. Shifts were served on Saturdays and Sundays with shifts added around the holidays.

03. Monitoring

This site was monitored 8 times by Allyssa Zebrowski, 5 of which were with Mike. Visits were an average of 63 minutes each time and the site was observed at all tides. There were three successful Wilson's Plover nests that hatched chicks. One Least Tern colony and two American Oystercatcher nests failed, likely due to coyote predation.









DEWEES ISLAND

Dewees Island is only accessible by ferry and had approximately 8 acres of posted nesting habitat on both ends of the island (only the south end is pictured). Dewees has hosted stewards for five years, with the exception of 2020, as Covid restrictions prohibited off-island volunteers. This year, three interns living on the island played a key role as stewards, helping to transport volunteers and educate visitors. Residents also helped stewards navigate to easier beach access points. The biggest source of disturbance is boats shoring up and not knowing about the nesting shorebirds.



01. Site Leaders

Lori Sheridan-Wilson and Judy Fairchild work together as Leaders for Dewees Island. Lori works as the island's Environmental Program Director and Judy is a resident who is passionate about wildlife.

02. Volunteers

Three island interns and three off-island volunteers served approximately 106 hours stewarding. On-site training was offered once Covid restrictions were lifted in May and off-island volunteers began serving shifts with the interns on Saturdays and Sundays.

03. Monitoring

This site was monitored by Lori and the interns who completed monthly International Shorebird Surveys. Based on the number of chicks and adults seen during these surveys, it is estimated that 5 Wilson's Plovers nests hatched. SCDNR also monitored this site and noted that no Least Tern colony nested here.





IOP WILD DUNES

Isle of Palms, Wild Dunes is a private residence area of the Isle of Palms, located at the north end of the island. Least Tern began nesting in this area for the first time in 2019, which prompted the need for Shorebird Stewards. The nesting area measured about 3 acres this year and was roped off with signs and posts by SCDNR and Site Leader, Diane Troy.



01. Site Leader

Diane Troy is a dedicated resident that has served as Site Leader since 2019. She frequently communicates with both ASC and SCDNR to ensure the nesting species are well protected.

02. Volunteers

Two devoted stewards, Diane Troy and Laura Lovins, together worked 231 hours. Other stewards were able to join the team at various times, for a total of 247 hours volunteered, following the nesting birds as they roamed the beach.

03. Monitoring

This site was monitored by Diane, Laura and SCDNR, with support from ASC, who kept track of the 8 Least Terns and 2 Wilson's Plovers nests that successfully fledged chicks.





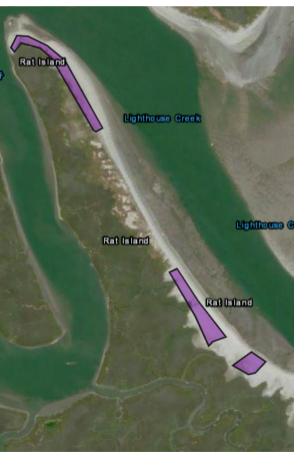






FOLLY BEACH LIGHTHOUSE INLET

Folly Beach Lighthouse Inlet Heritage Preserve is located at the north end of Folly Island. It has been an active stewardship site since 2017. The nesting area was approximately 4 acres long consisting mostly of a thin strip of beach. The biggest source of disturbance is people walking their dogs, despite this being a designated 'No Dogs' area. The shoreline is also very close to the roped off nesting area at high tide, which leads to many people walking too close to the birds at high tides.



01. Site Leader

Without an official Leader, Audubon staff member Allyssa Zebrowski served as Leader. The main logistical set-back for this site is the longer walk to the nest area and limited parking, which the City of Folly Beach helped to remedy by issuing passes during volunteer shift times.

02. Volunteers

Six volunteers along with Nolan Schillerstrom and Allyssa stewarded a total of 57 hours. On average, stewards volunteered 7 hours with shifts on Saturday and Sunday mornings, which helped stewards avoid the heavy beach traffic in the afternoons.

03. Monitoring

This site was monitored 14 times by Allyssa, accompanied 3 times by Nolan. The route was walked an average of 74 minutes each time and observed at all tides. Five Wilson's Plover nests and the first known Least Tern colony at this site, with about 20 total nests, hatched successfully. Two American Oystercatcher nests failed for unknown reasons.

















BOTANY BAY

Botany Bay Plantation Wildlife Management Area is located on Edisto Island and has been an active stewardship site since 2018. The nesting areas this year were located at the north and south ends, measuring about 8 acres. Due to strict Covid regulations, volunteers were unable to steward until August 2021. The biggest source of disturbance is people walking on the marsh relics, which are an important feeding area for migratory and wintering birds. Stewards for August and September 2021 will focus on educating beachgoers about this important habitat.



01. Site Leader

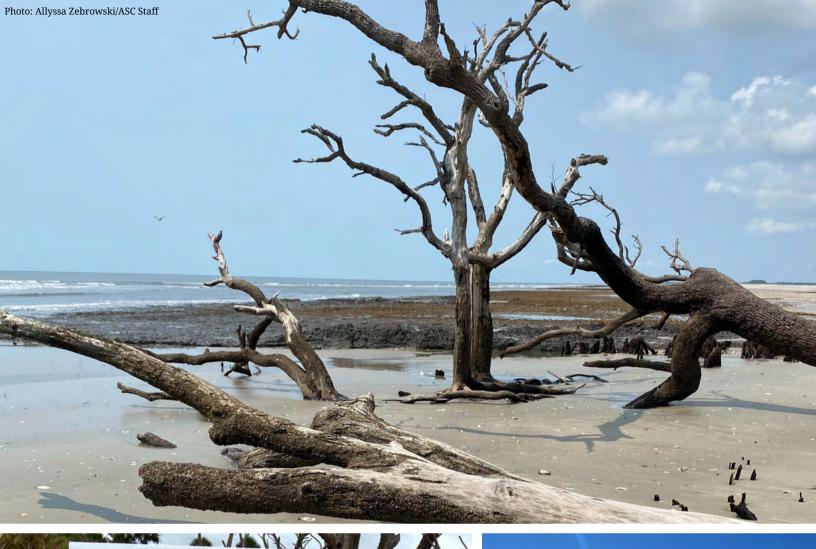
Bess Kellet is the SCDNR Volunteer Coordinator at Botany Bay and has been its Site Leader since 2018. During the pandemic, Bess did her best to steward the site herself and is excited to be hosting Shorebird Stewards again this fall.

02. Volunteers

As of August 1st 2021, three stewards, two returning & one new, began volunteering at Botany Bay. Shifts occur every day of the week except Tuesday and will change when this SCDNR managed area is open for hunting season.

03. Monitoring

Among her other responsibilities, Bess monitored the site for nesting birds. Based on the chicks she saw, two Wilson's Plovers and two American Oystercatcher nests hatched successfully.







HARBOR ISLAND

Harbor Island is a private island located in Beaufort County. It began as a pilot stewardship site in 2016 and has had an active program ever since. This year, the nesting site measured approximately 2 acres, less than preceding years as storm surge has substantially changed the beach. The biggest source of disturbance here is dogs being off-leash and/or too close to the nesting area.



01. Site Leader

Peggy Lucas is a resident of the Island and has been the Site Leader since 2017. Along with volunteering for the Turtle Patrol and helping with other nature programs, Peggy's hard work keeps Harbor's steward program running smoothly.

02. Volunteers

Thirteen volunteers stewarded for a total of 146 hours, working shifts on Saturdays and Sundays with extra shifts on the holidays. On average, stewards volunteered 11 hours total, with the max being 42 hours served by Peggy.

03. Monitoring

This site was monitored 10 times, 9 of which were with Peggy, with an average time of 56 minutes spent per visit. There were 2 successful Wilson's Plover nests that fledged chicks. The chicks often fed in the marsh relics exposed at low tide, necessitating stewards to direct people around the area. No Least Tern or American Oystercatchers nested here.











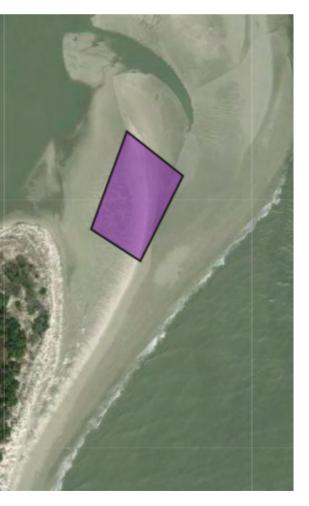






HUNTING ISLAND

Hunting Island State Park has been an active stewardship site since 2019. This year, the nesting area was located at the north end of the island and measured about 2.5 acres, all of which was posted and roped off. Because Harbor and Hunting Islands are separated by Johnson Creek, many migratory and wintering birds spend time on both beaches. The biggest source of disturbance to birds at this site are dogs. Despite signage, many visitors claim to not see them and often walk both on and off-leash dogs in the area.



01. Site Leader

Kate and Dave Hudson have been the Site Leaders for Hunting Island since it became a site in 2019. As members of the Friends of Hunting Island, they are a huge help in communicating the needs of stewards between ASC, the State Park, USFWS and SCDNR.

02. Volunteers

Eleven volunteers worked 169 hours throughout Friday and Saturday shifts with some extra holiday shifts added. The max number of hours served was 50 by the Hudsons and many volunteers reported interactions with dogs and their owners.

03. Monitoring

This site was monitored 11 times by Allyssa Zebrowski, once with the Hudsons. Dave also regularly completed International Shorebird Surveys. Two Wilson's Plover nests and one Least Tern colony with about 30 nests hatched. Because of tidal over-wash in the nest area, it is unclear how many Least Tern chicks were able to fledge, but the Wilson's Plover fledged 5 chicks. During spring migration about 2,000 Red Knot were also counted in the area.









Mixed flock. Photo: Vicki Hollifield/Steward





BULL POINT

Bull Point, located on Little Capers Island, to the south of Pritchard's Island, became a stewarding site in May 2021. The Turtle Patrol working on the island noticed a colony of Least Tern on the beach. SCDNR roped off about 0.5 acres of nesting area and ASC coordinated staff and volunteers to patrol that part of the beach, mainly during holiday weekends when boaters landed on shore in higher volumes. Because the site is only accessible by boat, ASC relied on Beaufort-area captains to shuttle volunteers to the island. The biggest sources of disturbance are off-leash dogs and people shoring up or walking too close to the nesting area.



01. Site Leader

As a new site, no Leader has yet been established, but Nolan captained ASC's boat to this site most often. Local boat captains that helped at Bull Point included John Steman, Jack McGill, Al Seagars and Robert Morris, all of which offered transportation for volunteers.

02. Volunteers

Seven volunteers, including ASC staff, Allyssa and Nolan, stewarded 66 hours on the beach. Many Turtle Patrol team members were also trained as Shorebird Stewards and helped to talk to beachgoers during their patrol.

03. Monitoring

ASC and SCDNR monitored this site. According to Audubon's nest count estimates, there were 30 Least Tern and 4 Wilson's Plover nests that fledged chicks.















KIAWAH ISLAND

Kiawah Island is a private island that has run their shorebird stewardship program through the Town of Kiawah since 2018. ASC offers Shorebird Steward training to new and returning stewards. The east end of the island was posted with signs to designate the nesting area. The west end of the island is where migratory species roost, particularly around Captain Sams Spit. During migration, stewards split into zones to steward areas where Red Knots, in particular, were roosting. During nesting season, stewards patrolled the east end. Many residents recognize the importance of stewards, but the biggest source of disturbance is people flushing flocks of resting migratory birds.

01. Site Leader

Bette Popillo has been the Site Leader of Kiawah for three years with support from the Island's Biologist, Aaron Given. This year, Bette implemented a new incentive system to show appreciation for Kiawah's stewards and increase volunteer participation.

02. Volunteers

This season, there were 23 total volunteers, 11 returning and 12 new, who stewarded a total of 567 hours. Stewards also worked about 6 hours total, at the time of this report, at the Farmer's Market, educating over 150 people about shorebirds.

03. Monitoring

This site was monitored by the Town of Kiawah's Biologist, Aaron Given. He estimates that there were 125 Least Tern, 9 Wilson's Plover, and 2 American Oystercatcher nests that were successful.

SEABROOK ISLAND

Seabrook Island is a private island that began their shorebird stewardship program in 2020 through the Seabrook Island Birders club associated with the Town of Seabrook Island. ASC offers Shorebird Steward training to new and returning stewards. Although the pandemic greatly affected their first year, 2021 was a successful year with many new volunteers and several returning. This program mainly focuses on protecting the thousands of Red Knot that use the shores of Seabrook, Captain Sams Spit and Kiawah to rest. When the large flocks of Red Knot leave to migrate north, stewards switch their focus to the nearby nesting area.

01. Site Leader

Mark Andrews, Bob Mercer, Melanie Jerome and Leslie Gore are the core leadership team of this stewarding program. They work together to create educational material specific to Seabrook and ensure their program runs smoothly.

02. Volunteers

A total of 21 volunteers worked 2-hour shifts throughout the spring and summer for a total of 236 hours of stewarding. Most stewards are island residents with a few that come from off-island to volunteer.

03. Monitoring

Monitoring for this site was led by Mark Andrews, Bob Mercer, SCDNR and their fellow stewards. Mark and Bob used their cameras and scopes to re-sight thousands of Red Knot and were able to track which species successfully nested. Despite the failure of the Wilson's Plovers and Least Terns due to natural causes, their well-known American Oystercatcher, U5, successfully hatched 2 chicks that were then banded by SCDNR.

ADDITIONAL OUTREACH

Additional outreach and educational efforts that involved Shorebird Stewards and/or coastal stewardship work at ASC occurred throughout the summer. Some events were led or accompanied by Shorebird Stewards themselves while others were led by Nolan and Allyssa. These events totaled 14 hours and educated about 194 people total.







01. Bird Walks

Two ASC Coast staff-led bird walks occurred at the nesting site at Folly Beach Lighthouse Inlet to allow guests to see the birds in action and discuss the importance of our stewarding program. One walk was with Rep. Spencer Wetmore and the other was with members of the Coastal Master Naturalist Association.

02. Family Events

The City of Folly Beach hosted Folly Family Fun Night where ASC was able to speak to 15 kids and 5 parents about how they can help coastal birds when on the beach. Kiawah Island Farmer's Market also hosted a table for the Island's Shorebird Stewards to educate guests.

03. Volunteer Groups

Rhapsody Gym's Sweat n' Serve volunteers walked the nesting site at Folly Beach Lighthouse Inlet to learn more about coastal birds and how to be better stewards at the beach. Bishop England High School's Day of Service volunteers split into two groups where one built shade shelters for beach-nesting birds and the other helped to remove nesting signs at Lighthouse Inlet. Both groups were taught about the importance of letting these birds rest and nest while visiting the beach.

ADDITIONAL OUTREACH

Annual outreach efforts that ASC staff and volunteers participate in are described below. These take place in coordination with SCDNR, USFWS and South Carolina schools along the coast.

01. Sign Posting

Our partners at SCDNR and USFWS rope off areas on beaches where birds will likely nest for the season. To limit disturbance to birds, they determine these areas before actual nesting occurs. Placement may therefore change throughout the season as birds chose where to lay their nests. Whenever possible, ASC staff and volunteers assist in these efforts every year. Teamwork is important to expedite this work, as there are many locations that need posting and a short time-frame in which to post them.



ASC staff-member Nolan Schillerstrom began in-school lessons in 2016, educating students on shorebirds and their conservation needs. Students then created sign designs detailing what they learned and ASC made these into durable signage that was posted at coastal sites. The pandemic halted these programs, but staff plans to return to schools when it is safe.





JMON

As a conclusion to this Coastal Stewardship Report, it is with extreme gratitude that ASC acknowledges its partners and volunteers, without whom this program would not be successful. This report was compiled by ASC's Seasonal Coastal Stewardship Coordinator, Allyssa Zebrowski.

- Charleston Animal Society
- Charleston County Parks and Recreation Commission
- City of Folly Beach
- Coastal Expeditions
- College of Charleston
- Dewees Island Conservancy
- Harbor Island HOA and Environmental SC State Parks Committee
- IOP Wild Dune's POA
- Kiawah Conservancy and the Town of Kiawah

- National Fish and Wildlife **Foundation**
- North Inlet-Winyah Bay, National Estuarine Research Reserve
- SC Department of Natural Resources
- SC Shorebird Project
- Seabrook Island Birders and the Town of Seabrook
- US Fish and Wildlife Service
- Volvo Cars

THE GREATEST **ACKNOWLEDGEMENT OF ALL GOES TO OUR DEDICATED VOLUNTEERS!**

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