

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF SOUTH CAROLINA
CHARLESTON DIVISION

DEFENDERS OF WILDLIFEE,)
Plaintiff,)
v.)
U.S. FISH AND WILDLIFE SERVICE,)
Defendant,)
and)
CHARLES RIVER LABORATORIES)
INTERNATIONAL, INC.,)
Intervenor-Defendant)

C.A. No. 2:20-cv-3657-BHH

**PLAINTIFF’S COMBINED MOTION
FOR A PRELIMINARY INJUNCTION
AND MEMORANDUM IN SUPPORT**

MOTION FOR A PRELIMINARY INJUNCTION

Plaintiff Defenders of Wildlife hereby moves for a preliminary injunction to stop commercial activities authorized by Defendant U.S. Fish and Wildlife Service (“the Service”) and conducted by contractors for Intervenor-Defendant Charles River Labs (“CRL”) within Cape Romain National Wildlife Refuge (“Cape Romain” or “Refuge”) that are causing irreparable harm to the threatened *rufa* red knot and other species. As detailed herein, the Service has allowed the commercial harvest of horseshoe crabs throughout Cape Romain, a disruptive practice that is depleting a critical source of food for migratory shorebirds in the Refuge, horseshoe crab eggs. The Refuge, which was designed for the very purpose of protecting migratory birds like the red knot, no longer contains a sufficient number of horseshoe crab eggs to sustain migratory shorebird populations; the number of red knots and other shorebirds that use the Refuge is in a dangerous decline.

Plaintiff moves for a preliminary injunction with respect to Claims 1-5, which address the Service’s violations of the National Wildlife Refuge System Improvement Act of 1997 (“Refuge Improvement Act”), 16 U.S.C. §§ 668dd-668ee, and the Endangered Species Act (“ESA”), *id.* § 1536(a)(2). Without a preliminary injunction, the harvest in will resume in April or May 2021, and will irreparably diminish the number of horseshoe crabs in the Refuge, removing a source of food necessary to species’ survival. By contrast, there is no irreparable harm in CRL having to harvest horseshoe crabs from other locations outside of the Refuge, as CRL may harvest horseshoe crabs throughout state waters. The public interest in protecting threatened species and National Wildlife Refuges also strongly supports an injunction.¹

¹ Pursuant to Local Rule 7.02, Plaintiff has conferred with Defendant the Service and Intervenor-Defendant CRL and is informed that both oppose this motion.

INTRODUCTION

Cape Romain National Wildlife Refuge is broadly recognized as providing irreplaceable nesting, foraging, and sheltering habitat to migratory birds and other species, as it has been since its creation for this purpose in 1932. Nearly 300 species of migratory and local birds have been identified within Cape Romain. The Refuge harbors species and critical habitat that are protected by the ESA, including the *rufa* red knot, the loggerhead sea turtle and its critical habitat, and the piping plover and its critical habitat. Of particular relevance here, the Refuge contains isolated barrier islands where horseshoe crabs come to spawn every year, and where migratory birds make a critical stop to feed on nutrient-rich horseshoe crab eggs during their northward migration.

Recently, the Service has opened nearly all of Cape Romain to the collection of horseshoe crabs and its related commercial disturbances by CRL's contractors. These commercial activities occur annually between April and June, when horseshoe crabs spawn in the intertidal zone of islands in the Refuge. The harvest occurs in areas where birds and other ESA-listed species forage and nest. Unfortunately, the number of breeding horseshoe crabs at the Refuge has been so depleted by the harvest in recent years that spawning now does not produce enough eggs to sustain feeding migratory birds. As a result, the number of red knots and other migratory shorebirds that use Cape Romain is now in decline. The disturbances associated with the harvest also drive birds away from feeding grounds and cause birds to temporarily abandon their nests, exposing their eggs and chicks to predation and overheating.

The Service violated federal law when it authorized this commercial activity in Cape Romain. The agency violated the Refuge Improvement Act and its regulations by, among other issues, failing to determine whether commercial horseshoe crab harvesting is compatible with

Cape Romain's purposes, *see* 16 U.S.C. § 668dd(d)(3)(A)(i), and by failing to issue CRL's contractor a Special Use Permit that authorizes individuals to conduct commercial activities inside of the Refuge, *see* 50 C.F.R. § 27.97. The agency has also failed to comply with the substantive and procedural requirements of the ESA because it has never consulted on the many impacts of horseshoe crab harvesting on ESA-listed species and their critical habitat in Cape Romain, *id.* § 1536(a)(2), and it has never revised its 2010 Cape Romain land use plan following subsequent listings of species and a designation of critical habitat under the ESA, 50 C.F.R. § 402.16(a).

In late April or early May, CRL's contractors are expected to once again raid Cape Romain's pristine islands for horseshoe crabs. Horseshoe crab harvesting can decimate crab populations in a matter of years. Plaintiff requests this Court take immediate action to prevent the continued irreparable harm caused by this commercial activity in the Refuge. Plaintiff seeks a preliminary injunction requiring the Service to temporarily suspend the commercial harvesting activities in the Refuge until the agency completes a Compatibility Determination under the Refuge Improvement Act, issues a Special Use Permit required for all commercial activities in the Refuge, and engages in ESA consultation to ensure that the harvest does not jeopardize listed species or adversely modify designated critical habitat. Plaintiff also seeks to enjoin CRL and any of its agents and contractors from (1) commercially harvesting horseshoe crabs within Cape Romain and (2) purchasing horseshoe crabs harvested from Cape Romain.

FACTUAL BACKGROUND

Overview of Cape Romain

Cape Romain was established in 1932 pursuant to the Migratory Bird Conservation Act, "for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." 16

U.S.C. § 715d. The more than 66,000-acre refuge is composed primarily of bays and estuarine emergent wetlands, with barrier islands that run along the Atlantic Ocean. ECF No. 1-2 at 24, 33. The Refuge is a crucial haven for wildlife. At least 293 species of birds have been documented in the Refuge. U.S. Fish & Wildlife Serv., *Cape Romain National Wildlife Refuge Bird List* at 3 (Aug. 2019).² In fact, many of the same types of birds that the federal government found notable when it first acquired the Refuge lands continue to exist there today, including oyster catchers, Wilson’s plovers, ruddy turnstones, black skimmers, terns, and herons. MIGRATORY BIRD CONSERVATION COMMISSION, REVIEW OF WORK FOR THE FISCAL YEAR 1930, H.R. DOC NO. 71-670, at 4 (1930) (Ex. A); ECF No. 1-2 at 36, 67. Among other ESA-listed species, the threatened *rufa* red knot (*Calidris canutus rufa*), the threatened piping plover (*Charadrius melodus*), and the threatened Northwest Atlantic Ocean Distinct Population Segment (“DPS”) of the loggerhead sea turtle (*Caretta caretta*) all reside in Cape Romain. Moreover, the Service designated critical habitat for the loggerhead sea turtle and the piping plover within the Refuge.

Historically, two primary factors make Cape Romain a successful sanctuary for migratory birds: (1) the availability of horseshoe crab eggs for feeding migratory shorebirds; and (2) the remote and isolated nature of many of the Refuge’s barrier islands. The horseshoe crab is a marine species that has existed for more than 400 million years, earning it the nickname of “living fossil.” Declaration of Dr. Lawrence (“Niles Decl.”) at ¶ 8 (Ex. B). Horseshoe crab eggs serve as a critical and irreplaceable source of food during spring migration for many shorebird species, including those in Cape Romain. *Id.* at ¶¶ 4, 14, 66; Fumika Takahashi, *Shorebird Utilization of Horseshoe Crab (Limulus polyphemus) Eggs at Cape Romain National Wildlife Refuge, South Carolina*, CLEMSON UNIVERSITY TIGERPRINTS, ALL THESES, 2577 at ii (2016)

² Available at <https://perma.cc/X35F-3BLV> (permanent link).

(“Takahashi 2016”) (Ex. C). “Horseshoe crab eggs are soft, energy-rich, and can be easily digested and metabolized into fat and protein. These properties allow shorebirds that are mid-migration to nearly double body weight quickly and to rebuild their organs and muscles following the grueling first leg of their journeys.” Niles Decl., Ex. B, at ¶ 14.

Cape Romain is also critical to migratory birds because many of its islands are isolated from human disturbances, including humans’ physical presence, noise, and use of artificial lighting. According to the Service, “[p]roviding undisturbed nesting, roosting, and foraging habitat is the most important role for the management of shorebirds within Cape Romain.” ECF No. 1-2 at 51. Approaching nesting birds by boat, or remaining near them, can cause them to flush, which exposes their chicks and eggs to overheating or being eaten by predators, such as seagulls. ECF No. 1-2 at 51.

For these reasons, the Service has enacted temporary closures for some of Cape Romain’s islands.³ “To protect nesting birds,” the Service regulations prohibit all members of the public from accessing the islands of Marsh Island, White Banks, and Sandy Point in Cape Romain from February 15 through September 15 each year. 50 C.F.R. § 26.34(mm)(1)(v). The Refuge Manager has remarked that the temporary closures serve “to minimize disturbance of these extremely important bird nesting islands.” ECF No. 1-6 at 1. Yet as noted below, the Service routinely allows CRL contractors to violate these closures designed to protect nesting birds.

³ The Service manages the Refuge according to its 2010 Comprehensive Conservation Plan (“CCP”), which is a land use plan required for refuges pursuant to the Refuge Improvement Act, 16 U.S.C. § 668dd(e). CCPs “describe[] the desired future conditions of a refuge or planning unit and provide[] long-range guidance and management direction to achieve the purposes of the refuge.” 50 C.F.R. § 25.12(a).

Members of the public are authorized to use other islands year-round, such as Bulls Island, Raccoon Key, and Cape Island. However, the public may generally only use those islands for activities that the Service has approved after it ensures that the activities are compatible with the purposes of Cape Romain, *see* 16 U.S.C. § 668dd(d)(3)(A)(i), and that they do not jeopardize the continued existence of ESA-listed species or adversely modify their critical habitat, *see id.* § 1536(a)(2); *see also* ECF No. 1-2 at 154–76 (documentation of compatibility determinations and ESA consultation for public uses of Cape Romain). Moreover, if members of the public intend to engage in a commercial enterprise at the Refuge, the Service must first issue a Special Use Permit for the activity. 50 C.F.R. § 27.97.

Horseshoe Crab Harvesting in Cape Romain

A CRL contractor, Joel Munn, and his crew harvest horseshoe crabs on the beaches of Cape Romain every year for commercial purposes. *See, e.g.*, ECF No. 1-4 at 2, 5. Horseshoe crabs collected by Mr. Munn in the Refuge are sold to CRL, a biomedical company that drains their blood for the production of a protein used to detect bacterial contamination in substances injected into the human body. ECF 12-1 at 1, 3, 4; Niles Decl., Ex. B, at ¶¶ 19-20; Chiara Eisner, *Vaccine testing is changing. Why is this \$13B lab still bleeding SC horseshoe crabs?*, THE STATE at 3 (Feb. 11, 2021) (“Eisner Article”) (Ex. D).⁴ Horseshoe crab harvesting in Cape Romain occurs in the intertidal zone of the Refuge’s islands when horseshoe crabs are spawning between April and June. ECF No. 1-2 at 35; ECF No. 1-4 at 3. In one year of harvesting, CRL’s contractors can take more than 20,000 crabs from the Refuge. *See* ECF No. 1-7 at 2 (stating that

⁴ Note that synthetic alternatives, which also can effectively screen for endotoxin contamination, replacing the need for horseshoe crab blood. Niles Decl., Ex. B, at ¶ 21. Synthetics are used by many pharmaceutical companies other than CRL, such as Eli Lilly and companies operating in the European Union. *Id.*

CRL's contractors collected 25,000 crabs in 2014). Among other locations in Cape Romain, CRL's contractors have collected horseshoe crabs from Bulls Island and Raccoon Key. The Service has authorized Mr. Munn to conduct commercial activities including this harvest and its associated disturbances throughout most of Cape Romain. ECF No. 1-5 at 2. He also inevitably trespasses by harvesting on Marsh Island, an ongoing offense that CRL has been aware of since at least 2014. Letter from Sarah Dawsey, Refuge Manager, Cape Romain Nat'l Wildlife Refuge, U.S. Fish and Wildlife Serv., to John Dubczak, Endotoxin and Microbial Detection, Charles River Laboratory at 1 (May 12, 2014) (Ex. E); *see also* ECF Nos. 1-3, 1-4, 1-5, 1-6.

Impacts of Horseshoe Crab Harvesting on Cape Romain Wildlife

Horseshoe crab harvesting and its associated commercial activities put Cape Romain's wildlife at serious risk. First, the harvest and subsequent handling and bleeding of horseshoe crabs is causing a significant decline in the number of horseshoe crabs within the Refuge. The harvest is also irreparably harming threatened red knots that use Cape Romain because it is preventing them from consuming horseshoe crab eggs, a critical and irreplaceable component of their diet, and otherwise disturbs their feeding activities. The commercial harvest may also affect threatened piping plovers and threatened loggerhead sea turtles, along with their designated critical habitats. Finally, it undermines the feeding and breeding processes of many species of migratory birds that use Cape Romain by removing a critical food source and disrupting nesting birds.

A. Impacts of Horseshoe Crab Harvesting and its Associated Commercial Activities on Horseshoe Crabs

Horseshoe crab harvesting can decimate horseshoe crab populations. Indeed, "[t]he leading cause of the declining horseshoe crab population is humans overharvesting the species for bait and for use by the biomedical industry." Niles Decl., Ex. B, at ¶ 18. Horseshoe crabs are

only harvested for biomedical industry use in South Carolina. *Id.* Contrary to CRL’s assertion that horseshoe crabs “are returned unharmed to their natural habitat” following the bleeding process, ECF 12-1 at 4, harvesting can cause the death of up to 30% of harvested horseshoe crabs after bleeding and release. Niles Decl., Ex. B, at ¶ 23; *see also* A.S. Leschen & S.J. Correia, *Mortality in Female Horseshoe Crabs (Limulus Polyphemus) From Biomedical Bleeding and Handling: Implications for Fisheries Management*, 43 *Marine & Freshwater Behaviour and Physiology* at 135 (2010).⁵ In fact, a horseshoe crab’s chances of survival diminish for every minute that it remains outside of its marine habitat. Niles Decl., Ex. B, at ¶ 24. Horseshoe crabs regularly die from the stress of being collected or from physical damage incurred during collection or while being released. *Id.* at ¶ 25; *see also* Lenka Hurton & Jim Berkson, *Potential Causes of Mortality for Horseshoe Crabs (Limulus Polyphemus) During the Biomedical Bleeding Process*, 104 *Fishery Bulletin* at 293 (2006).⁶ Moreover, puncturing the species’ heart and extracting a third of its blood increases the rate of mortality and infections following the bleeding process. Niles Decl., Ex. B, at ¶ 25. “Even if horseshoe crabs survive harvesting and bleeding... their chances of survival remain lowered and they are less likely to subsequently lay eggs even when returned to the areas from which they were harvested.” *Id.* at ¶ 27.

The harvest in Cape Romain threatens to quickly deplete the Refuge’s waning horseshoe crab population beyond repair. In Delaware Bay, the number of horseshoe crabs and crab eggs abruptly declined beginning in the 1990s due to overharvesting. Before the overharvest began, the average density of horseshoe crab eggs deposited in Delaware Bay was 40,000 eggs per

⁵ Available at <https://perma.cc/H84V-S3G7> (permanent link).

⁶ Available at <https://perma.cc/Y4GZ-K5F7> (permanent link).

square meter. *Id.* at ¶ 33. That number quickly plummeted to roughly 6,000 eggs per square meter by 2003. While this decline spurred regulatory intervention in 1998, after more than 20 years of conservation and restoration efforts, the current density of horseshoe crab eggs in Delaware Bay is approximately 8,000 eggs per square meter, which is an 80% decline in density when compared to before the overharvest began. *Id.* at ¶ 34. Recovering horseshoe crab populations is extraordinarily difficult. According to shorebird expert Dr. Lawrence Niles, “[i]n my years of research related to horseshoe crabs, I am not aware of a single instance of when a horseshoe crab population has been able to fully recover, even following the implementation of more sustainable harvesting practices.” *Id.* at ¶ 32.

Unlike circumstances in Delaware Bay in the early 1990s, the horseshoe crab population in Cape Romain is already well into its decline. *Id.* Researchers have identified far fewer horseshoe crabs in Cape Romain in recent years when compared to previous years. *Id.* at ¶ 57. “Cape Romain is no longer viable as a stopover location that is capable of providing sufficient [horseshoe crab eggs] for red knots that travel directly to the Arctic.” *Id.* If harvesting takes place this year as planned, the number of horseshoe crabs in the Refuge will continue to decline and the species—and those that rely on horseshoe crab eggs for food—will be irreparably harmed. *Id.* at ¶ 66.

B. Impacts of Horseshoe Crab Harvesting and its Associated Commercial Activities on Listed Species

Horseshoe crab harvesting in Cape Romain imperils the threatened red knot, a species that depends on the Refuge to safely refuel during its long migration north, but which has been visiting the Refuge in declining numbers. Horseshoe crab eggs are the key element in red knots’ diet, yet the number of horseshoe crabs in the Refuge has diminished to the point where demand from red knots far exceeds supply. The harvest may also be affecting other listed species,

including the threatened piping plover, the threatened loggerhead sea turtle, and their respective designated critical habitats.

The Service added red knots to the threatened species list in 2015. Endangered and Threatened Wildlife and Plants; Threatened Species Status for the Rufa Red Knot, 79 Fed. Reg. 73,706 (Dec. 11, 2014). Red knot populations were decimated in the late 1800s and early 1900s by commercial hunting for sport and food. Endangered and Threatened Wildlife and Plants; Proposed Threatened Status for the Rufa Red Knot (*Calidris canutus rufa*), 78 Fed. Reg. 60,024, 60,028 (Sept. 30, 2013). More recently, the species' population has declined from threats to its habitat and prey species. According to the Service, “[r]educed food availability . . . due to commercial harvest and subsequent population decline of the horseshoe crab” at a stopover site used by some red knots, Delaware Bay, “is considered a primary causal factor in the decline of the *rufa* subspecies in the 2000s . . .” *Id.* at 60,063.

Red knots migrate between their breeding grounds in the Canadian Arctic and their wintering locations, which include areas in the Southeastern United States, the Gulf of Mexico, and South America. 79 Fed. Reg. at 73,706. Most red knots stop partway through the northbound portion of their migration along the Atlantic Coast to regain weight and rebuild their organs and muscles. 78 Fed. Reg. at 60,027; Niles Decl., Ex. B, at ¶ 14, 43-45. When refueling, red knots must build up enough fat and protein to power the latter portion of their journey to the Arctic and to successfully breed upon their arrival. *Id.* at ¶ 45. These stopovers are time-constrained, requiring red knots to quickly eat food that is easily digested and nutrient-rich. 78 Fed. Reg. at 60,027. A portion of red knots that use South Carolina as their stopover location subsequently fly directly to the Arctic. Niles Decl., Ex. B, at ¶ 44. Studies show that if they do not weigh at least 180 grams after their stopover, they can die en route to their destination or be unable to

reproduce upon arrival. *Id.* at ¶ 46.

Red knots that stopover in Cape Romain rely on horseshoe crab eggs to gain sufficient weight to support the second half of their northbound journey. *Id.* at ¶ 55; *see also* Takahashi 2016, Ex. C, at 24 (study demonstrating that areas used by red knots in Cape Romain “were significantly correlated to horseshoe crab egg abundance”). Horseshoe crab eggs allow foraging red knots to gain about six grams per day, whereas red knots can only gain one to two grams per day when consuming other sources of prey, such as clams and mussels. Niles Decl., Ex. B, at ¶ 48. Each red knot that refuels using horseshoe crab eggs must consume about 400,000 of these eggs. *Id.* at ¶ 49.

The density of spawning horseshoe crabs impacts whether foraging red knots and other migratory shorebirds in Cape Romain can access and locate the crab eggs. *Id.* at ¶¶ 13, 15. This is because horseshoe crabs lay their eggs six inches underground, which is too deep to be within the reach of foraging shorebirds. *Id.* at ¶ 15. In order for the eggs to become accessible for the red knot and other migratory shorebirds, there must be repeated spawning by multiple crabs in the same area, causing the newly-deposited eggs to displace previously-deposited eggs, pushing them onto the earth’s surface. *Id.* at ¶¶ 12, 15. In Delaware Bay, harvesting caused the density of horseshoe crab eggs to decrease by roughly 85% from before the overharvest began in the early 1990s through 2003. *Id.* at ¶ 33. “At [the 2003] level, eggs densities were insufficient to support shorebird stopovers...” *Id.* During that same general time period, red knot usage of the area declined by over 86%. *Id.* The Delaware Bay red knot population has never recovered. *Id.*

The commercial harvest in Cape Romain poses a similar threat to red knots. Among other islands, red knots have been documented using Bulls Island, Lighthouse Island, and Marsh Island during their stopovers in Cape Romain. *See* Takahashi 2016, Ex. C, at 27, 82-84. CRL’s

contractor has explicit authorization from the 2016 Letter to harvest on Bulls Island and Lighthouse Island, and he also harvests on Marsh Island every year. Due to the declining horseshoe crab population in the Refuge, there are not enough horseshoe crab eggs in Cape Romain to sustain red knot populations that would have historically used the area. Niles Decl. Ex. B, at ¶ 57. The number of red knots that visit Cape Romain is currently in decline, which is a result of the birds' depleted source of prey. *Id.* at ¶¶ 58-60. Red knots that *continue* to use Cape Romain as their stopover location despite this lack of sustenance “risk dangerous flights to the Arctic” when they fly directly from the Refuge to their breeding grounds. *Id.* at ¶ 61. If the harvest continues this year, red knots will have little access to horseshoe crab eggs in the Refuge and will be irreparably harmed. *Id.* at ¶ 66.⁷

Finally, CRL's contractors' commercial activities in the Refuge may also affect the piping plover, the loggerhead sea turtle, and their designated critical habitats in Cape Romain. Piping plovers, which were listed as threatened in 1986, Endangered and Threatened Wildlife and Plants; Determination of Endangered and Threatened Status for the Piping Plover, 50 Fed. Reg. 50,726 (Dec. 11, 1985), are sensitive to human disturbances, which reduce their food intake and increase their energy expenditure, Endangered and Threatened Wildlife and Plants; Final Determination of Critical Habitat for Wintering Piping Plovers, 66 Fed. Reg. 36,038, 36,043 (July 10, 2001). In 2011, the Service and the National Marine Fisheries Service classified the

⁷ Activities associated with horseshoe crab harvesting, such as walking along the shore and using motorized boats, also result in disturbances to red knots that can impact their feeding behavior. Human disturbances, especially during the peak migration months of May and August, can drive red knots to reject foraging habitats that would have otherwise been preferred. *See, e.g.*, 78 Fed. Reg. 60,076-77. Moreover, as the Service addressed in its decision to list the red knot, research shows that human disturbances can cause a decline in shorebirds' food intake and the amount of time spent foraging. *Id.* at 60,078. This year's harvest is likely to have this impact on listed species as well.

Northwest Atlantic Ocean DPS of the loggerhead sea turtle as a threatened species. Endangered and Threatened Species; Determination of Nine Distinct Population Segments of Loggerhead Sea Turtles as Endangered or Threatened, 76 Fed. Reg. 58,868, 58,950-51 (Sept. 22, 2011). Horseshoe crabs are a source of prey to loggerhead sea turtles, *id.* at 58,918, and harvesting removes that source of prey from the Refuge. Moreover, harvesting in Cape Romain may degrade designated critical habitat for both the piping plover and loggerhead sea turtle, such as through sand compaction by walking and pulling boats ashore, along with crushing prey and leaving behind debris.

C. Effects of Horseshoe Crab Harvesting and Its Associated Commercial Activities on Migratory Shorebirds and Other Species

Other shorebird populations in Cape Romain are also in decline, Niles Decl., Ex. B, at ¶ 57. The commercial horseshoe crab harvest is interfering with the ability of these migratory shorebirds to feed. As is the case with the red knot, the decline in horseshoe crabs in the Refuge has resulted in an insufficient number of eggs to sustain stopovers from other visiting migratory shorebirds. Niles Decl., Ex. B, at ¶¶ 59-61. If the harvest continues this year, other “shorebirds will have little access to a critical food source” and will also be irreparably harmed. *Id.* at ¶ 66.

The commercial harvest also harms nesting migratory birds in the Refuge. Locations in the Refuge used by CRL’s contractors are home to many sensitive nesting birds that the Refuge Manager has identified as being of “highest” and “high” priority, including eastern brown pelicans, royal terns, sandwich terns, Forster’s terns, American oystercatchers, black-crowned night herons, black skimmers, gull-billed terns, and Wilson’s plovers. *See, e.g.* ECF No. 1-4 at 6 (identifying priority nesting birds on Marsh Island). Disturbances caused by CRL’s contractors can result in these birds flushing off their nests, exposing their chicks and eggs to predation and overheating in the sun.

The Regulation of Horseshoe Crab Harvesting in Cape Romain

The Service exercised its regulatory authority over the commercial horseshoe crab harvest in 2016 when it sent a letter to Mr. Munn (“2016 Letter”) authorizing, for the first time, the commercial harvest of horseshoe crabs from nearly the entire Refuge, including the associated boat traffic, foot traffic, and other disturbances to the Refuge’s resources and wildlife. ECF No. 1-5 at 2. In this authorization, the Service explained that Mr. Munn could access “the remainder of the refuge, more than 66,000 acres of land and waters . . . year-round” for commercial fishing, except Marsh Island, White Banks, and Sandy Point, which are closed “to public entry from February 15 through September 15 . . . to fulfill the purpose of the refuge.” *Id.* Moreover, for more than one harvest season, the Service granted Mr. Munn Special Use Permits for after-hours access to the Refuge’s Garris Landing boat launch, so that he may have “easier access” to the harvest area. ECF No. 1-4 at 5.

While the Service owns certain portions of Cape Romain, South Carolina leases other portions to the agency pursuant to a 1991 lease (“1991 Lease”) granting the Service a property interest in Cape Romain subject to South Carolina’s ability to “authorize the taking of shellfish, finfish, and other salt water species within the refuge boundary.” ECF No. 1-1 at 1. South Carolina is responsible for issuing generalized statewide permits governing horseshoe crab harvesting, which regulate aspects of the harvest such as catch requirements and reporting. *See* S.C. Code Ann. § 50-5-1330(B). The Service, on the other hand, regulates the scope of the commercial harvest within the Refuge to ensure compatibility with the Refuge’s purposes, and the agency can limit where in the Refuge harvesting may occur. ECF No. 16-1 at 29. Indeed, the Service has previously asserted the 1991 Lease as a basis for its authority to regulate harvesting activities in the Refuge. *See* ECF No. 1-6 at 2 (explaining to CRL’s contractor that he could not

enter Marsh Island and White Banks because they were closed “[b]ased on [the] lease agreement.”).

The Service’s 2016 authorization of commercial activities throughout the Refuge failed to comply with several statutory requirements designed to protect the Refuge and its species. The Service did not conduct a compatibility determination under the Refuge Improvement Act to ensure that commercial activities conducted by Mr. Munn in the Refuge comport with its purposes; it did not issue the CRL contractor a Special Use Permit for commercial activities under that Act’s regulations, which would include terms and conditions necessary to protect the Refuge from the harvest’s harmful impacts. The Service also failed to comply with Section 7(a)(2) of the ESA, which requires the Service to consult about the impacts of commercial activities conducted by Mr. Munn and his crew on listed species and their critical habitats, and insure that such authorized activities do not jeopardize listed species or adversely modify their critical habitats.

STANDARD OF REVIEW

Generally, “[a] plaintiff seeking a preliminary injunction must establish [1] that he is likely to succeed on the merits, [2] that he is likely to suffer irreparable harm in the absence of preliminary relief, [3] that the balance of equities tips in his favor, and [4] that an injunction is in the public interest.” *Winter v. Natural Res. Def. Council*, 555 U.S. 7, 20 (2008); *see also Pashby v. Delia*, 709 F.3d 307, 320-21 (4th Cir. 2013).

“The purpose of a preliminary injunction is merely to preserve the relative positions of the parties until a trial on the merits can be held.” *United States v. South Carolina*, 840 F. Supp. 2d 898, 914 (D.S.C. 2011) (quoting *Univ. of Tex. v. Camenisch*, 451 U.S. 390, 395 (1981)). The Fourth Circuit has determined that a preliminary injunction is proper when maintenance of the

status quo “aids the court in granting final relief.” *In re Microsoft Corp. Antitrust Litig.*, 333 F.3d 517, 525 (4th Cir. 2003), *abrogation on other grounds recognized in Bethesda Softworks, LLC v. Interplay Entm’t Corp.*, 452 F. App’x 351, 353-54 (4th Cir. 2011). In applying the standard for a preliminary injunction, the Court should be mindful of the “incalculable” harm from the loss of a listed species and the urgency in “avoid[ing] further diminution of national and worldwide wildlife resources” *Am. Rivers v. U.S. Army Corps of Eng’rs*, 271 F. Supp. 2d 230, 261 (D.D.C. 2003) (internal quotation omitted).

ARGUMENT

To prevent the further decline of conditions in Cape Romain, Plaintiff seeks a preliminary injunction with respect to Claims 1-5 to temporarily enjoin the Service from continuing to allow commercial activities authorized by its 2016 Letter until the agency completes a Compatibility Determination, issues a Special Use Permit, and engages in ESA Section 7 consultation for the activity. Plaintiff further seeks to enjoin Intervenor CRL and its agents and contractors from engaging in commercial harvesting in Cape Romain and from purchasing any horseshoe crabs that were harvested in Cape Romain. The populations of horseshoe crabs, red knots, and shorebirds in Cape Romain are all in decline, and if the harvest moves forward this spring, Plaintiff’s members’ interests in visiting the Refuge will be irreparably harmed. On the other hand, CRL’s interests will not be irreparably harmed by a temporary suspension because the company can simply harvest and purchase horseshoe crabs from outside of the Refuge. Finally, a preliminary injunction is in the public interest because it would protect imperiled species and a National Wildlife Refuge.

I. Plaintiff Is Likely to Succeed on the Merits of Its Claims

A. The Service’s Authorization of Commercial Horseshoe Crab Harvesting in Cape Romain Violates the Refuge Improvement Act

The National Wildlife Refuge System is managed pursuant to the Refuge Improvement Act, which Congress passed to “help protect species large and small, beautiful and not-so-beautiful, endangered and common alike.” 143 Cong. Rec. H7646-02, 143 Cong. Rec. H7646-02, H7647, 1997 WL 586267, 4. The primary mission of the National Wildlife Refuge System is:

to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.

16 U.S.C. § 668dd(a)(2). The Refuge Improvement Act was intended “to establish clearly the conservation mission of the System.” H.R. REP. NO. 105-106, at 3 (1997), *reprinted in* 1997 U.S.C.C.A.N. 1798-5. It establishes crucial management prescriptions for the Service to ensure that the refuge system achieves its conservation mandate.

The Service has violated the Refuge Improvement Act by failing to conduct a Compatibility Determination for the commercial harvest of horseshoe crabs, *see* 16 U.S.C. § 668dd(d)(3)(A)(i), by failing to issue a Special Use Permit for the commercial harvest, 50 C.F.R. § 27.97, and by authorizing an activity that undermines wildlife and the purpose of the Refuge, 16 U.S.C. § 668dd(a)(4)(A), (D).

1. The Service Failed to Conduct a Compatibility Determination Before Authorizing the Commercial Harvest

The Service violated the Refuge Improvement Act by failing to conduct a Compatibility Determination before it issued the 2016 Letter expanding the scope of commercial horseshoe crab harvesting to all but three islands in Cape Romain. The Service may “permit the use of any area within the System for any purpose . . . whenever [it] determines that such uses are

compatible with the major purposes for which such areas were established.” 16 U.S.C. § 668dd(d)(1)(A). The requirement to perform a Compatibility Determination applies whenever the Service “initiate[s] or permit[s] a new use of a refuge or expand[s], renew[s], or extend[s] an existing use of a refuge,” 16 U.S.C. § 668dd(d)(3)(A)(i); *see also* 50 C.F.R. § 26.41(a). For a use to be “compatible” it must be “a wildlife-dependent recreational use or any other use of a refuge that, in the sound professional judgment of the [Service], will not materially interfere with or detract from the fulfillment of the mission of the System or the purposes of the refuge.” 16 U.S.C. § 668ee(1).

To decide whether a use would be compatible, a refuge manager must conduct a multi-factored analysis called a “Compatibility Determination.” *See* 50 C.F.R. § 26.41. Compatibility Determinations are critical to determine not just *whether* a use can be carried out, but *how* a use can be carried out. Congress anticipated that these determinations will be “inherently complex and will require the [refuge] manager to consider principles of sound fish and wildlife management and administration, available science and resources, and compliance with applicable laws.” H.R. REP. NO. 105-106, at 65. Examples of requisite considerations during the analysis include the impacts of the use on the refuge’s purpose, whether the use is a priority public use, and where, when, and how a use would be conducted. 50 C.F.R. § 26.41(a)(6)(i)-(iv), (a)(8). If it is possible for a use to achieve compatibility with modifications, then the Service would use these and other factors to tailor conditions necessary to ensure compatibility. *Id.* § 26.41(a)(11).

In the 2016 Letter, the Service provided its authorization for CRL’s contractor to engage in the commercial horseshoe crab harvest in nearly the entire Refuge, expanding the scope of where the Service sanctioned the activity. ECF No. 1-5 at 2. The Service, however, never

engaged in a Compatibility Determination when authorizing these expanded commercial activities and their associated boat traffic, foot traffic, and other disturbances to the Refuge's resources and wildlife. By failing to conduct a Compatibility Determination when expanding this use, the Service has failed to comply with the Refuge Improvement Act, *see* 16 U.S.C. § 668dd(d)(1)(A), and otherwise has acted in a manner that is arbitrary and capricious and not in accordance with law, 5 U.S.C. § 706(2)(A).

The 2016 Letter is a final agency action that for the first time provided the Service's authorization for certain commercial activities in expanded portions of the Refuge. ECF No. 21 at 6-9. However, *even if* issuance of the 2016 Letter were not a final agency action, the Service is nevertheless unlawfully withholding a Compatibility Determination on these activities. *See* 5 U.S.C. § 706(1). In a case involving an agency's failure to act, "[j]udicial review is appropriate if the plaintiff makes a showing of "agency recalcitrance . . . in the face of clear statutory duty or . . . of such a magnitude that it amounts to an abdication of statutory responsibility." *Audubon Soc. of Portland v. Jewell*, 104 F. Supp. 3d 1099, 1102 (D. Or. 2015) (internal citation omitted) (finding the Service violated its statutory duty to complete a CCP for several refuges and ordering the agency do so by a date certain). The Service has never made a Compatibility Determination for commercial horseshoe crab harvesting in the Refuge, despite the Refuge Improvement Act's mandate that for uses such as that of CRL's contractor, the agency can only "permit the use of any area within the System . . . whenever [it] determines that such uses are compatible with the major purposes for which such areas were established . . ." 16 U.S.C. § 668dd(d)(1)(A). The agency is therefore unlawfully withholding compliance with the Refuge Improvement Act's Compatibility Determination requirement for these activities. *Id.*

2. The Service Failed to Issue a Special Use Permit Before Authorizing the Commercial Horseshoe Crab Harvest

The Service has also violated regulations promulgated pursuant to the Refuge Improvement Act that prohibit commercial activities such as the harvest unless authorized by a Special Use Permit. Refuge Improvement Act regulations “apply to areas of land and water held by the United States in fee title and to property interests in such land and water in less than fee For areas held in less than fee, the regulations . . . apply only to the extent that the property interest held by the United States may be affected.” 50 C.F.R. § 25.11(a). According to the regulations, “conducting a commercial enterprise on any national wildlife refuge is prohibited except as may be authorized by special permit.” 50 C.F.R. § 27.97. This “special permit” is often referred to as a “Special Use Permit.”

The commercial harvest of horseshoe crabs can only proceed if the Service has issued a Special Use Permit for the activity. The commercial horseshoe crab harvest affects the federal property interest in Cape Romain by altering and degrading land leased by the United States and harassing wildlife which the Refuge was established to protect. The Refuge Improvement Act regulations therefore apply to the commercial harvest, *see* 50 C.F.R. § 25.11(a), including the requirement that all commercial enterprises be authorized by special permit, *id.* § 27.97. Thus, the Service violated the Refuge Improvement Act regulations by failing to require Mr. Munn to obtain a Special Use Permit before authorizing his expanded commercial activities in Cape Romain, and otherwise has acted in a manner that is arbitrary and capricious and not in accordance with law. 5 U.S.C. § 706(2)(A).

Even if the Court does not determine that the 2016 Letter expanding the allowable locations for Mr. Munn to conduct his commercial activities is a final agency action, the Service is nevertheless unlawfully withholding issuance of a legally requisite Special Use Permit to

engage in these activities. *See* 5 U.S.C. § 706(1).

3. The Service Is Violating Affirmative Management Prescriptions

In authorizing the commercial horseshoe crab harvest, the Service has also failed to comply with management criteria in the Refuge Improvement Act that require the agency to conserve wildlife and carry out the Refuge’s purposes when administering National Wildlife Refuges. The Refuge Improvement Act requires the Service to “provide for the conservation of fish, wildlife, and plants, and their habitats within the System.” 16 U.S.C. § 668dd(a)(4)(A). The Act further asserts that the agency must “ensure that the mission of the [Refuge] System . . . and the purposes of each refuge are carried out.” *Id.* § 668dd(a)(4)(D). The 2016 Letter undermines both of these goals.

The agency’s authorization of the harvest undermines its objectives of providing for the conservation of wildlife and achieving the Refuge’s purpose as a migratory bird sanctuary. The numbers of horseshoe crabs, red knots, and other shorebirds in Cape Romain are all in decline because of horseshoe crab harvesting in the refuge. Niles Decl., Ex. B, at ¶ 57-66. Horseshoe crab eggs are linked to the survival of long-distance migratory shorebirds such as the threatened red knot, the ruddy turnstone, and the sanderling, *id.* at ¶ 13, and they are a critical source of food for migratory shorebirds in Cape Romain, *id.* at ¶¶ 60, 66; Takahashi 2016, Ex. C, at 24 (sanderling, semipalmated sandpiper, red knot, ruddy turnstone, willets, dunlin, shortbilled dowitcher, and laughing gull species documented foraging on horseshoe crab eggs at high rates). Horseshoe crab harvesting in Cape Romain is depleting this crucial resource.

Commercial horseshoe crab harvesting also disturbs sensitive nesting birds, including birds described by the Refuge Manager as being of “high” and “highest” priority. *See* ECF No. 1-4 at 6 (describing Eastern brown pelicans, royal terns, sandwich terns, Forster’s terns, American oystercatchers, black-crowned night herons, black skimmers, gull-billed terns, and

Wilson's plovers). Disruptions such as those caused by CRL's contractors can result in birds flushing off their nests, exposing their chicks and eggs to predation and overheating in the sun. ECF No. 1-2 at 60.

The agency's violations apply to areas within the scope of the Service's 2016 authorization as well as those where CRL's contractors were never granted explicit permission to enter, such as Marsh Island. Indeed, the Refuge Improvement Act's legislative history shows that Congress contemplated the risk of trespassing, providing bird-watching as an example of a use that should be prohibited unless it can "prevent trespassing on sensitive nesting areas." H.R. REP. NO. 105-106, at 9. Yet the agency continues to authorize CRL's contractors' use of Cape Romain knowing that they trespass on Marsh Island every single year.⁸

Defenders of Wildlife v. Andrus, 455 F. Supp. 446 (D.D.C. 1978) confronted a similar situation. There, the court held that Service regulations authorizing boating activities within a refuge that would disturb migratory water birds were inconsistent with the purpose of the refuge as a migratory bird sanctuary because users were unlikely to abide by the regulations. *Id.* at 447–49. That is equally true of the Service's 2016 Letter explicitly authorizing commercial horseshoe crab harvesting and its attendant boating and other activities in nearly all of Cape Romain. In *Andrus*, the Service had proposed to limit the impact of boating on the refuge's purpose through speed limits, but the court held that this could not cure the incompatibility because the public would not likely observe those limits. *See id.* at 449. Similarly, the Service's (toothless) prohibition of the horseshoe crab harvest on certain islands in Cape Romain, when the Service is

⁸ The Refuge Manager has remarked that the temporary closure of Marsh Island serves "to minimize disturbance of these extremely important bird nesting islands," and is "a result of our mandate to fulfill the purpose of the refuge." ECF No. 1-5 at 2.

well aware that harvesters habitually trespass on those islands, does not render the 2016 Letter consistent with the Refuge's purpose as a migratory bird sanctuary.

For these reasons, the Service has violated the Refuge Improvement Act by failing to provide for the conservation of wildlife, *see* 16 U.S.C. § 668dd(a)(4)(A), failing ensure the purposes of Cape Romain are carried out, *see id.* § 668dd(a)(4)(D), and otherwise has acted in a manner that is arbitrary and capricious and not in accordance with law, 5 U.S.C. § 706(1), (2)(A).

B. The Service Has Violated the Endangered Species Act

The Service violated Section 7(a)(2) of the ESA when it authorized the commercial harvest in nearly all of Cape Romain without consulting on its impacts to listed species and their designated critical habitat. It moreover violated ESA regulations by failing to reinitiate consultation on the 2010 CCP after the red knot and Northwest Atlantic Ocean DPS of the loggerhead sea turtle were listed and following designation of loggerhead critical habitat in the Refuge.

1. The Service Failed to Engage in ESA Consultation Before Authorizing Commercial Horseshoe Crab Harvesting in Cape Romain

The ESA is “the most comprehensive legislation for the preservation of endangered species ever enacted by any nation,” *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 180 (1978), and Section 7(a)(2) is the “heart” of the statute, *Karuk Tribe of Cal v. U.S. Forest Serv.*, 681 F.3d 1006, 1019 (9th Cir. 2012) (en banc) (citation and quotations omitted). The substantive and procedural obligations of Section 7(a)(2) “admit[] of no exception.” *Tenn. Valley Auth.*, 437 U.S. at 173. Section 7(a)(2) mandates that all federal agencies “insure that any action authorized, funded, or carried out by [the agency] . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification

of [critical] habitat of such species.” 16 U.S.C. § 1536(a)(2). To carry out that mandate, all agencies are required to consult with the appropriate federal wildlife agency whenever “*any* [agency] action may affect listed species or critical habitat.” 50 C.F.R. § 402.14(a) (emphasis added); 16 U.S.C. § 1536(a)(2). The Service took “action” that “may affect” listed species when it authorized the commercial harvest of horseshoe crabs in nearly all of Cape Romain, thus triggering the ESA’s consultation requirement. Because the Service issued the authorization without consulting on the effects of its action or insuring that its action would not jeopardize listed species or adversely affect the critical habitat of such species, the Service violated its substantive and procedural obligations under ESA Section 7(a)(2).

An “action” under the ESA is defined expansively to include “all activities or programs of *any* kind authorized, funded, or carried out, in whole or in part, by federal agencies.” 50 C.F.R. § 402.02 (emphasis added). “There is little doubt that Congress intended agency action to have a broad definition in the ESA,” *Karuk Tribe of Cal.*, 681 F.3d at 1020 (citation and quotations omitted). Through the 2016 Letter, the Service took a discretionary action expanding the scope of the commercial harvest to nearly the entire Refuge. In so doing, the Service exercised its discretion to “authorize[.]” “activities.”

The Service’s action authorizing the horseshoe crab harvest triggers the “may affect” threshold for Section 7 consultation. The “may affect” threshold is “relatively low.” *Karuk Tribe*, 681 F.3d at 1027 (quoting *Cal. ex rel. Lockyer v. U.S. Dep’t of Agric.*, 575 F.3d 999, 1018 (9th Cir. 2009)). “Any possible effect, whether beneficial, benign, adverse or of an undetermined character” triggers the consultation requirement. *Id.* (quoting *Lockyer*, 575 F.3d at 1018–19; 51 Fed. Reg. 19,926, 19,949 (June 3, 1986)) (emphasis omitted). Commercial horseshoe crab harvesting “may affect,” and undoubtedly *does* affect, threatened red knots because it removes a

food source critical to the species' survival, horseshoe crab eggs. Niles Decl., Ex. B, at ¶¶ 57-66. The commercial harvest also "may affect" threatened piping plovers, a species whose food intake can be decreased and energy expenditures increased due to human disturbances. 66 Fed. Reg. at 36,043. Moreover, the commercial harvest "may affect" loggerhead sea turtles, which have been known to at times eat horseshoe crabs. Determination of Nine Distinct Population Segments of Loggerhead Sea Turtles as Endangered or Threatened, 76 Fed. Reg. 58,918 (Sept. 22, 2011) (codified at 50 C.F.R. pt. 223, 224). Finally, the harvest "may affect" piping plover and loggerhead sea turtle critical habitat in Cape Romain because harvesting can degrade the quality of habitat through sand compaction and by crushing food and prey along the shores or leaving behind debris, making habitat less hospitable.

Thus, the Service's authorization of the commercial horseshoe crab harvest in the Refuge triggered the agency's Section 7 consultation obligations under the ESA because it is an action that "may affect" listed species and designated critical habitat in Cape Romain. The Service violated the ESA when it failed to engage in consultation on this action. *See* 16 U.S.C. 1536(a).

2. The Service Violated ESA Regulations by Failing to Reinitiate Consultation on the CCP

Finally, the Service violated the ESA's implementing regulations by failing to reinitiate consultation on the Refuge's 2010 CCP following (1) the 2011 listing of the Northwest Atlantic Ocean DPS of the loggerhead sea turtle, (2) the 2014 designation of loggerhead sea turtle critical habitat in Cape Romain, and (3) the 2015 listing of the red knot. Because the Service has an ongoing obligation to comply with the procedural and substantive mandates of Section 7, it is obligated to reinitiate consultation on agency actions under several circumstances "where discretionary Federal involvement or control over the action has been retained or is authorized by law." 50 C.F.R. § 402.16(a). One such circumstance is "[i]f a new species is listed or critical

habitat designated that may be affected by the identified action.” *Id.* § 402.16(a)(4). Reinitiation is crucial because it “could yield important actionable information” for “agencies [that] make additional decisions after approval that implement land use plans at the site-specific level.”

Cottonwood Envtl. Law Ctr. v. U.S. Forest Serv., 789 F.3d 1075, 1087 (9th Cir. 2015)

(“*Cottonwood*”) (internal citation omitted) (finding that reinitiation is required for certain Forest Plans following the designation of critical habitat for the threatened Canada lynx).⁹

The action at issue in this matter is the development of the 2010 CCP. The Refuge Improvement Act requires the Service to develop “comprehensive conservation plans” for refuges, 16 U.S.C. § 668dd(e), and to manage each refuge “in a manner consistent with [its] plan,” *id.* § 668dd(e)(1)(E). The agency may “revise the conservation plan as may be necessary.” *id.* § 668dd(e)(1)(A)(iv). According to the Service, Cape Romain’s CCP “acts as a road map on which the Service relies to guide its management of Cape Romain.” ECF No. 16-1 at 18. The Service engaged in consultation on the CCP in 2009, ECF No. 1-2 at 176, but has not reinitiated consultation in response to the subsequent listing of the red knot, nor to the classification of the Northwest Atlantic Ocean DPS of the loggerhead sea turtle and the designation of its critical habitat.

This failure to reinitiate consultation violates ESA regulations. The Service meets the regulations’ reinitiation prerequisite of “discretionary Federal involvement or control over” the Cape Romain CCP. 50 C.F.R. § 402.16(a). The Service retains involvement and control over the Cape Romain CCP because it makes site-level decisions consistent with the plan and the Refuge

⁹ In 2019, the Service amended its regulations to specify that reinitiation is generally not required for land use plans developed pursuant to the National Forest Management Act, 43 U.S.C. § 1712, and the Federal Land Policy and Management Act, 16 U.S.C. § 1604. *See* 50 C.F.R. § 402.16(b). This amendment to the regulations was specific to these two “exception[s] to reinitiation” and did not except any other land use plans from reinitiation. *Id.*

Improvement Act reserves discretion to the agency to amend the plan. *See* 16 U.S.C. § 668dd(e)(1)(E). Similar to the Forest Plans at issue in *Cottonwood*, and as acknowledged by the Service, the Cape Romain CCP “is a framework for guiding refuge management decisions. . . . That is, the Plan acts as a road map on which the Service relies to guide its management of Cape Romain.” ECF No. 16-1 at 18. Thus, the Service is in violation of 50 C.F.R. § 402.16(a).

II. Plaintiff is Likely to Suffer Irreparable Harm If an Injunction is Not Granted

Plaintiff is likely to suffer irreparable harm in the absence of a preliminary injunction. First, courts have acknowledged that there is not a high threshold to establishing irreparable harm in cases involving the ESA. *See Cottonwood.*, 789 F.3d at 1091 (“In light of the stated purposes of the ESA in conserving endangered and threatened species and the ecosystems that support them, establishing irreparable injury should not be an onerous task for plaintiffs.”), *cert. denied*, 137 S. Ct. 293 (2016); *see also Sierra Club v. Von Kolnitz*, 2017 WL 3480777, at *6 (D.S.C. Aug. 14, 2017) (“Generally, courts have found that there is a strong showing of irreparable harm in cases involving the ESA.”). The Supreme Court has stated that because “[e]nvironmental injury, by its very nature, can seldom be adequately remedied by money damages and is often permanent or at least of long duration[,] [it is] irreparable.” *Amoco Prod. Co. v. Village of Gambell*, 480 U.S. 531, 545 (1987). Indeed, “[a]esthetic and environmental well-being, like economic well-being, are important ingredients of the quality of life in our society. . . .” *Sierra Club v. Morton*, 405 U.S. 727, 734 (1972).

A plaintiff’s aesthetic and recreational interests are harmed by actions that impair his or her enjoyment of the environment. *Sierra Club v. U.S. Army Corps of Eng’rs*, 645 F.3d 978, 995-96 (8th Cir. 2011) (finding that construction of a power plant harmed plaintiffs by “interfer[ing] with [their] interests in studying and enjoying the environment”). Thus, a plaintiff is harmed by

actions that impair his or her ability to enjoy wildlife in its natural environment. *See, e.g., Humane Soc’y of the U.S. v. Hodel*, 840 F.2d 45, 52 (D.C. Cir. 1988) (finding harm where action would “deplet[e] the supply of animals and birds that refuge visitors seek to view”); *Fund for Animals, Inc. v. Lujan*, 962 F.2d 1391, 1396 (9th Cir. 1992) (finding that “the diminished opportunity of the Fund’s members to view the northern bison herd in Yellowstone establishes standing to challenge the 1990 bison management plan”).

Commercial horseshoe crab harvesting is the cause of the decline in the number of horseshoe crabs, red knots, and other shorebirds that exist in the Refuge. The harvesting and bleeding process temporarily removes the species from its habitat when it would otherwise be laying eggs, it kills up to 30% of harvested crabs, and it decreases surviving crabs’ likelihood of reproducing. Niles Decl., Ex. B, at ¶¶ 23-24, 27. While horseshoe crab harvesting can cause a rapid decline in the number of horseshoe crabs, it can take decades for populations to make any meaningful increases. *See, e.g. id.* at ¶¶ 30, 32-33. No horseshoe crab population has ever fully recovered. *See, e.g. id.* at ¶ 32.

Horseshoe crab eggs are a critical source of food for migratory shorebirds, including the red knot, so a reduction in the number of spawning horseshoe crabs causes these birds to either relocate to areas where there are more favorable foraging conditions or remain at Cape Romain and consume fewer nutrients, risking dangerous flights to the Arctic. *Id.* at ¶ 61. Moreover, because available sustenance at stopover sites is a limiting factor in the red knot’s survival, individuals that relocate to other stopover sites decrease the amount of prey available to red knots already using the same location. *Id.* at ¶¶ 53-54. In Delaware Bay, shorebird populations have never been restored to what they were before overharvesting began, which “has caused a

great loss of ecotourism related to the bird migration, devastating Delaware Bayshore communities that relied on . . . birders for income.” *Id.* at ¶¶ 33-34.

The Service’s ongoing authorization of commercial horseshoe crab harvesting, therefore, puts the interests of Plaintiff and its members in seeing, photographing, and enjoying the Refuge and its wildlife at imminent risk of irreparable harm. Plaintiff’s members visit Cape Romain for several recreational purposes, including kayaking, wildlife viewing, birding, and photography. Declaration of Dana Beach (“Beach Decl.”) at ¶¶ 1, 5, 9 (Ex. F); Declaration of William Kee (“Kee Decl.”) ¶ at 5 (Ex. G); Declaration of Daniel Prohaska, (“Prohaska Decl.”) at ¶¶ 3, 4 (Ex. H). Members enjoy birding at the Refuge, and have identified many bird species, including American oystercatchers, sandpipers, and red knots. Beach Decl., Ex. F, at ¶ 5; Kee Decl., Ex. G, at ¶ 5. One member has not yet spotted a red knot in Cape Romain, but it is on his list of birds he hopes to identify. Prohaska Decl., Ex. H, at ¶ 8. He has ferry tickets for the Refuge that he intends to redeem during the spring migration. *Id.* At least one member, who extensively photographs the birds he sees in Cape Romain, has noticed a decline in the size of red knot flocks at the Refuge over time, and closely tracks their declining global populations. Beach Decl., Ex. F, at ¶ 5.

The commercial harvest of horseshoe crabs harms the interests of plaintiff’s members. For member Dana Beach, the impact of the harvest on wildlife “diminishes my opportunities to view and photograph birds in the wild.” Beach Decl., Ex. F, at ¶ 9. According to member William Key, “[h]arm to red knots and other shorebirds harms my interests by reducing the number and diversity of birds available for viewing.” Kee Decl., Ex. G, at ¶ 9. Member Daniel Prohaska also expressed concern that the commercial harvest harms his interests as a birder that uses the Refuge. Prohaska Decl., Ex. H, at ¶ 9.

Thus, if this Court does not enjoin this spring's commercial horseshoe crab harvest in Cape Romain, Plaintiff will suffer irreparable harm.

III. The Balance of Harms Tips in Plaintiff's Favor

A party seeking a preliminary injunction must demonstrate "that the balance of equities tips in [its] favor." *Winter*, 555 U.S. at 20; *Pashby*, 709 F.3d at 329. The balance of equities weighs in favor of temporarily enjoining the commercial harvest and purchase of horseshoe crabs in Cape Romain.

"[W]hen evaluating a request for injunctive relief to remedy an ESA procedural violation, the equities . . . factor[] always tip[s] in favor of the protected species." *Cottonwood*, 789 F.3d at 1091; *see also Red Wolf Coal. v. U.S. Fish & Wildlife Serv.*, 210 F. Supp. 3d 796, 806 (E.D.N.C. 2016) ("[T]he equitable scales are always tipped in favor of the endangered or threatened species." (internal citation omitted)). The harvest is impairing threatened red knots' ability to forage. It may also be disturbing threatened piping plovers, impairing threatened loggerhead sea turtles' ability to forage, and degrading the designated critical habitat of both these species in Cape Romain. Moreover, the harvest is likely to irreparably harm the interests of Plaintiff's members that use Cape Romain for recreational purposes.

On the other hand, neither the Service nor CRL will be appreciably harmed by an injunction requiring the agency to temporarily suspend the commercial harvest in Cape Romain until it can ensure that any harvesting would be conducted in a manner that complies with the Refuge Improvement Act and ESA. Cape Romain is only one of many locations in South Carolina where horseshoe crabs are known to spawn. Indeed, SCDNR's hand harvesting permit generally applies statewide, with the exception of locations involving "trespass or harvest in restricted areas designated by other entities of the State or Federal government or in conflict with

private property rights.” S.C. Dep’t of Nat. Res., *Horseshoe Crab Hand Harvest Permit HH19 3* (Apr. 3, 2019) (Ex. I). Horseshoe crabs spawn throughout the state outside of Cape Romain in areas such as Eddingsville Beach, Harbor Island, Hunting Island, and Pritchards Island.¹⁰ S.C. Dep’t of Nat. Res., *South Carolina Horseshoe Crab Spawning and Nursery Habitat* at 1-2 (undated) (Ex. J)¹¹ (listing more than 30 spawning locations outside of Cape Romain). CRL is the sole purchaser of horseshoe crabs harvested in South Carolina. Eisner Article, Ex. D, at 3. This \$13 billion company can and does purchase crabs harvested from plenty of locations in South Carolina outside of Cape Romain and faces no competition when doing so.

Moreover, the balance of equities does not tip in CRL’s favor because it continues to purchase horseshoe crabs that it has known for several years were illegally obtained by trespassing in Cape Romain. An executive director in CRL’s Charleston location was notified at least as early as May 12, 2014 “that the collection of horseshoe crabs in Cape Romain National Wildlife Refuge on Marsh Island and/or White Banks Islands is in direct violation of refuge specific Federal Regulations” Ex. E at 1. The Service continues to maintain that harvesting on Marsh Island and White Banks is prohibited, ECF No. 16-1 at 3, yet CRL has continued to purchase horseshoe crabs harvested from Marsh Island and potentially White Banks, as recently as last year. The balance of equities should weigh against any harms claimed by CRL in part because for years, it has been knowingly profiting off of horseshoe crabs that were illegally poached, and a party cannot ask for the court to balance an interest that it is not entitled to.

¹⁰ Plaintiff does not address the sustainability of horseshoe crab harvesting in any of these locations and instead notes this to inform the Court that Cape Romain is far from the only horseshoe crab spawning location in South Carolina.

¹¹ Note that this document was obtained from the South Carolina Department of Natural Resources pursuant to the Freedom of Information Act.

IV. Injunctive Relief Is in the Public Interest

An injunction can only be granted if it is in the public interest. *Winter*, 555 U.S. at 20. Temporarily enjoining CRL from purchasing horseshoe crabs harvested from Cape Romain, and temporarily enjoining the Service from allowing commercial horseshoe crab harvesting at the Refuge until it can remedy its violations of Claims 1-5, is in the public interest.

The protection of Cape Romain from unfettered commercial horseshoe crab harvesting is in the public interest because the Refuge Improvement Act prioritizes wildlife conservation above human use of the refuge system. Above all else, the overriding mission of the National Wildlife Refuge System “is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.” 16 U.S.C. § 668dd(a)(2). In other words, the Refuge Improvement Act recognizes that the public benefits from federal land stewardship for the protection of species and makes this the primary mission of the National Wildlife Refuge System. The commercial harvest of horseshoe crabs in Cape Romain, which harms wildlife and habitat, undermines this public benefit.

Temporarily enjoining commercial horseshoe crab harvesting in the Refuge is also in the public interest because the Refuge Improvement Act prioritizes wildlife-dependent recreational uses of refuges (if they are deemed compatible) over other types of uses, such as economic uses. According to the Act, “compatible wildlife-dependent recreational uses are the priority general public uses of the System and shall receive priority consideration in refuge planning and management. . . .” *Id.* § 668dd(a)(3)(C). The Act identifies six priority wildlife-dependent recreational uses that can be employed at refuges when compatible, two of which are wildlife

observation and photography. *Id.* § 668ee(2). Visitors are attracted to Cape Romain for both of these activities. *See, e.g.* Beach Decl., Ex. F, at ¶ 5. The commercial harvest of horseshoe crabs, which harms species and habitat in the Refuge, only serves to detract from the public’s enjoyment of wildlife observation and photography. Indeed, horseshoe crab harvesting was the cause of a significant loss in ecotourism in Delaware Bay. Niles Decl., Ex. B, at ¶ 34.

A preliminary injunction is also warranted because the commercial harvest is harming at least one species listed under the ESA. When considering injunctive relief the public interest “always tip[s] in favor of the protected species.” *Cottonwood*, 789 F.3d at 1091; *see also Red Wolf Coal*, 210 F. Supp. 3d at 806. As discussed, the commercial horseshoe crab harvest is depleting red knots’ most important source of food. The number of red knots in Cape Romain is in decline, and members of this species that continue to use Cape Romain as their sole stopover location risk dangerous, underweight flights to the Arctic. Moreover, the commercial harvest may negatively affect threatened piping plovers, threatened loggerhead sea turtles, and their respective designated critical habitat inside the Refuge.

In light of the commercial horseshoe crab harvest’s harms to the Refuge and its wildlife, along with the lack of appreciable harm from temporarily enjoining the harvest, the balance of equities and public interest both weigh in favor of (1) temporarily enjoining the Service from allowing commercial horseshoe crab harvesting in the Refuge until it can remedy the statutory violations identified in Claims 1-5 and (2) temporarily enjoining CRL and its contractors and agents from harvesting or purchasing horseshoe crabs from Cape Romain.

CONCLUSION

For the above reasons, Plaintiff respectfully requests that this Court grant this Motion for Preliminary Injunction.

Respectfully submitted this 5th day of March, 2021.

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