



Audubon Society of Rhode Island

November 7, 2023

Ms. Vicky Hilton, Director
Charlestown Parks and Recreation Department

Parks and Recreation Master Plan Update Sub-Committee

Dear Ms. Hilton,

As an organization dedicated to the conservation of birds and the habitats they rely on, the Audubon Society of Rhode Island strongly opposes the installation of any novel lighting at Ninigret National Wildlife Refuge, even those deemed to be “dark sky friendly”.

To date, there has not been a comprehensive study to determine the impact of these lighting systems on migratory birds and, until such a study has been conducted which clearly shows that these lighting systems do not impact birds, it should be incumbent to forgo their use in an effort to increase our chances of successfully reversing the very real and very steep declines we have documented in our bird populations.

It has been well established in the scientific literature that survival rate of birds drops considerably to only 50% during periods of migration. Studies involving the Black-throated Blue Warbler (*Setophaga caerulescens*), a long-distance migrant, suggest that 85% of the annual mortality threat for the species occurs during the brief period of migration, with weekly mortality rates 15 times higher than the weekly mortality rates experienced during stationary periods of the year.

Of the estimated 2.9 billion birds lost from the North American landscape since 1966 (based on analysis of Breeding Bird Survey (BBS) data), approximately 57% were Neotropical migrants (birds that breed in Canada and the United States during our summer and spend our winter in Mexico, Central America, South America or the Caribbean islands).

The state of Rhode Island is a known hotspot for migration, and relative densities of birds passing overhead are far higher than in other New England states. The southern coast, including Charlestown, and the western forests of the state support extremely high numbers of migrants every.

The threats to these species are clear and the implementation of management plans to reverse declines must include addressing the most serious sources of decline, including cat predation, window strikes, habitat loss, and high artificial light at night (ALAN).

Birds rely heavily on celestial cues to navigate and orient during migration and nocturnal migrating birds are drawn to ALAN from as far as 5 km away, disorienting individuals and increasing the risk

Connecting People With Nature

12 Sanderson Road, Smithfield, Rhode Island 02917 • (401) 949-5454 • www.asri.org



Audubon Society of Rhode Island

of mortality from collision with buildings and structures, and physical exhaustion. To reduce risks to migrating birds from ALAN, the National Audubon Society has implemented a “lights out” program across the United States. The program is designed to help prevent bird mortality from building collisions and disorientation by working with cities, towns, and residential communities to reduce light pollution during periods of bird migration.

A growing body of literature suggests that ALAN has the capacity to draw birds off course during migration and increase further the mortality associated with an already high-risk period in a migratory bird’s annual cycle. Studies in New York have shown that as many as 1 million birds were drawn away from their typical migratory route during a five-year period as they passed over an area with high ALAN.

Any deviation from a migratory route increases energy use thereby requiring additional fueling. Therefore, even in the event that ALAN does not cause immediate mortality from collisions with buildings or other structures, the need to stop and refuel exposes birds to increased predation risk or energy deficits, which can lead to reduced nesting success and long-term survival.

Respectfully,

Dr. Charles Clarkson
Director of Avian Research

Connecting People With Nature

12 Sanderson Road, Smithfield, Rhode Island 02917 • (401) 949-5454 • www.asri.org