



BIRDING Beyond the Backyard

Tale of the Long-tailed Ducks

by Simon Perkins, Field Ornithologist



To Catch a Duck

Not all ducks are created equal. Scoters and eiders, many of which coexist with the long-tailed ducks in the waters around Nantucket, are the sea duck equivalent of an old pickup truck: big and slow. Long-tails, on the other hand, are the Ferraris of the sea duck world. Who knew? It took us two years of trial and error to figure out how to catch these avian rockets.

We tried to outrun them with the fastest boat in town (50 mph!) to get close enough to cast a net over them. They were much faster. We tried to outsmart them by sneaking up on them whenever they dove underwater for food. They were much smarter. Finally, it dawned on us: As they floated on the water at night, we used bright lights to stop them in their tracks until we got close enough for us to scoop them up from the bow with long-handled nets. Finally success!

—Simon Perkins

For years, Nantucket residents have been intrigued by an avian spectacle that plays out each day, all winter, every winter, at the west end of the island: at dawn, hundreds of thousands of long-tailed ducks pour out of Nantucket Sound in a veritable river of birds on their way to feeding areas on Nantucket Shoals off of the south and east shores of the island. At dusk, the same spectacle is replayed in reverse as the birds' stream back into the relatively protected waters of the Sound.

But where exactly do they roost each night? Do they cluster together in one massive "raft?" Or do they disperse evenly throughout the entire Sound? If they congregate in discrete areas, do they shift their position from one night or week to the next? Because these questions pertain to their behavior at night, the story remains a mystery—literally cloaked in darkness.

Knowing the locations of the roosting ducks is a key component of our scientific contributions to the Cape Wind Environmental Review (www.massaudubon.org/advocacy/wind.php). Data collected during several years of daytime plane surveys confirmed that their primary, daily, feeding areas are outside Nantucket Sound—far from the proposed Cape Wind project area. But it is essential that we ascertain, specifically, whether this area represents an important winter

roosting area for these ducks. Why? Especially because of their extraordinary abundance—the greatest number of long-tails in any one place in the world (perhaps as many as a quarter of the entire global population!) gather here.

If, for example, we discovered that most of the long-tails roosted every night in winter in precisely the area slated for the construction of the 130 proposed turbines, we would have grave concerns about the potential conflict between birds and blades.

In December 2007, our Conservation Science division initiated a study to gather clues to solve the mystery of the long-tails. We captured ten ducks, implanted miniature satellite transmitters as tracking devices, and then began recording their local movements. The telemetry data we collected last winter has shed some light on the key issues.

For example—and perhaps most importantly—we have logged more than 800 data points (geographical "fixes") for all instrumented ducks, and not one of the points has come from within the proposed Cape Wind project area. Does this mean long-tails don't roost there? We don't know because our sample size of instrumented ducks is small compared with the total number of ducks. But the pattern of distribution, at least in our first season of study, among the sample ducks was very clear.

We're already making preparations for a second season of telemetry this winter, with more transmitters and more ducks. Will these provide more glimpses into their secret lives at sea? Stay tuned!