INTRODUCTION

In his "A Brief Description of New York, Formerly called New Netherlands," written in 1670, Daniel Denton captured the essence of primeval Long Island when he canonized the wildflowers which caused "the countrey itself to send forth such a fragrant smell, that it may be perceived at Sea before they can make the Land." While it may be impossible to determine if it was Mr. Denton's nose or imagination that was his most sensitive feature, his perfumed image conjures up a picture of what the island must have been like.

We know, for example, that gray wolves, bobcats, and black bear once prowled the island. Beaver were plentiful, and most of Long Island's streams had populations of "sea-run" brook trout. Alewife runs were numerous, and the timber rattlesnake once hunted the island's underbrush. From the Oak Brush Plains and Pine Barrens came the booming mating call of the heath hen, the eastern race of the greater prairie chicken. Mountain lions, moose, elk, and bison may also have roamed Long Island's forests, although the record of their presence is less certain.

The natural communities on Long Island were as diverse as the plant and animal species were abundant. The Hempstead Plains, a grassland composed of some of the same prairie grasses that make up the prairies of the midwest, stretched for some 60,000 acres (nearly 100 square miles) across central Nassau County. This striking area, the cause of which has never been satisfactorily explained, gave rise to the names of the modern-day communities of Plainedge and Plainview. Moving east, the prairie grasses intermingled with the islands of pitch pine and scrub oak of the Oak Brush Plains. The community of Island Trees owes its name to this unique transition zone. The Pine Barrens, a mosaic of natural communities ranging from shadowy Atlantic white cedar swamps to shallow coastal plain ponds populated by carnivorous plants to upland forests where pitch pine and various oaks co-mingle to the globally rare dwarf pine plains of Westhampton, totaled nearly a quarter of a million acres.

In the western part of the island, and along the north shore, virgin stands of oak, chestnut, hickory, beech, and walnut formed dense,

shadowy forests rivaling those of the southern Appalachians. In moist soils the tulip tree, with its remarkable orange flowers, reached heights of 175 to 200 feet. Denton had something to say about the Island's forests as well as its flowers: "The greatest part of the Island is very full of timber, as oaks white and red, walnut trees, chestnut trees which yield store of mast for swine, also red maples, cedars, sarsifrage [sassafras?], beach, holly, hazel with many more."

Another indication of this remarkable original richness and abundance of Long Island's flora lies in the text of an advertisement that ran in a late 1800s botanical journal. The ad features a list of 114 native shrubs and wildflowers for sale by a Mr. Elihu S. Miller of Wading River. (Mr. Miller helped develop the first list of native plants of Suffolk County.) Included are a number of insectivorous plants such as pitcher plants, half a dozen orchid species including pink lady slipper, ladies' tresses, and rattlesnake plantain, and several fern species. Prices ran from \$2.00 to \$8.00. The amazing information lies in the heading of the ad. It reads:

LIST OF WILD PLANTS OF LONG ISLAND Which I am prepared to collect. The prices quoted are per hundred. I will deliver them at the Railroad packed in good order. Prices for single plants or per dozen by mail (postpaid) sent upon application.

Here was just one individual (and there must have been others) who made money, presumably on a regular basis, by picking wild plants in guaranteed quantities of 100. In contrast, if someone were to attempt to be so employed today (assuming it were legal to pick these species, and in most cases it is not), they would be out of business within a week. For some of the plant species Mr. Miller listed, there are not more than a few hundred plants remaining on all of Long Island.

The Long Island of today is not only diminished with regard to its diversity and abundance of wildflowers. The bobcat, wolf, and bear are gone, having been exterminated early in the island's settlement. The beaver, exploited beyond recovery, followed. The last heath hen perished in 1842 (and the last of its race died in 1931 on Martha's Vineyard), and the Labrador duck faded into extinction when the last known living specimen was shot on Long Island in 1875. The last rattlesnake was seen in 1912. A number of other species have vanished or have had their ranges substantially reduced.

Natural communities have suffered too. Virtually all of the Hempstead Plains, except for a token preserve, were destroyed due to the indifference of Nassau County officials. About 95 percent of the Oak Brush Plains has been lost, and more than half of the Pine Barrens as well. The great mixed deciduous forests on which Denton lavished praise were significantly cut over to supply lumber and cordwood, and after rebounding when the saws were stopped, became fragmented by suburban expansion. Thousands of acres of salt meadows which formed the southern edge of the island have been buried beneath millions of tons of fill, placed there for tract housing.

Despite these profound changes, and the fact that nearly eight million people now live here, there is still much that remains of the natural Island. Approximately 180 bird species have been recorded as breeding on Long Island and many more migrate through or overwinter here. Several dozen native mammals are found on Long Island and in the salty waters that surround it. Thousands of insect species feed upon the foliage of the island's 88 or so native tree species or on the thousands of native shrubs, wildflowers, and grasses.

It is my fond hope that this book will pique your interest in this "other" Long Island, the one that has always been there and is still available to those who care. Many fascinating natural events, unfolding seasonally, occur in full view at easy-to-get-to places. The book includes an assortment of the most interesting of these, accompanied by a list of specific places where the best examples can be enjoyed. This is my invitation to explore wildness, and by so doing, to become more deeply connected to the living world around you—an experience that is among the most fulfilling a human being can have.

A note of caution must be included concerning the welfare of plants and animals discussed in the book. Most wild animals are easily disturbed. Therefore, it is vital that you maintain a sufficient distance—common sense and the behavior of the animal are two good guidelines—between the animal and its audience. Many of these animals are endangered and are afforded protection under various federal and state wildlife laws which contain stiff penalties for those who violate their provisions.

Appropriate judgment must be exercised with regard to plants as well. Many of the species detailed are rare and/or declining, and it is

essential for their welfare that they not be dug up or picked. With the notable exceptions of blueberries and cranberries, leave the plant or wildflower there for the next person (and next generation) to enjoy.

Making a Difference

The intricate tapestry of interwoven species and ecosystems which collectively reflect the richness and diversity of this world is under stress like never before. This tapestry is fraying in countless ways at both the middle and edges alike. Climate change threatens to turn the natural world upside down and inside out, affecting virtually every species that shares the planet with us. Scientists tell us that polar bears may be extinct within a century, that coral reefs are systematically dying as the oceans warm, and the geography of continental coastlines will be redrawn. The oceans are becoming increasingly barren with too many fishers going after a shrinking pool of fish. And more and more species are moving to the precipice of extinction as the combination of habitat destruction, pollution, and wildlife trade exert their collective toll.

The deterioration of the global environment is not due to any single activity or cause (although many of these clearly have a greater adverse impact than others). Rather, our growing environmental crisis is, by and large, rooted in and fueled by hundreds of millions of seemingly insignificant and unrelated decisions made each and everyday by corporations, government officials and agencies, and individuals.

It is difficult for many of us to effect change in the decisions taking place in corporate board rooms and governmental committees due to the time and energy it typically takes to become involved in the political process. Here's where conservation and environmental organizations play a surrogate, yet critical, role to your direct involvement by reflecting and expressing your concern for the environment to corporate and political America. They are able to marshal and focus your support for protecting the environment to achieve gains in protecting wildlife, preserving open space, promoting renewable energy, and in a whole host of other important conservation areas. Environmental organizations at the local (listed in the appendices), statewide, and national levels would greatly appreciate your financial support.

Decision making at the individual level has to do with lifestyle choices, and in this regard we all have an opportunity to move away from actions that are harmful to the planet to a new, more harmonious path.

The choices we make regarding the foods we eat are a prime example. Raising, growing, and catching the foods that sustain us creates an enormous impact on the environment. Indeed, between pesticide, energy, and fertilizer use in agriculture, the clearing of tropical forests to grow coffee and tea, and the death of millions of birds, sea turtles, and juvenile fish caught in nets and snagged in fishing lines—to cite but a very few examples—the collective environmental and ecological impact of securing food for our table is almost beyond calculation.

What to do? Choosing organic foods is a great step as is "eating closer to the sun" by eating more green plants, fruits, and vegetables and less animal protein, Choose fish, shellfish, and crustacean species harvested in a manner that is sustainable and/or minimizes harm to other species (marine conservation organizations like Blue Ocean Institute and Environmental Defense Fund have extensive information on their Internet websites). Buy "shade-grown" coffee and tea—coffee beans and tea leaves collected from trees which are part of an intact, bird-friendly rain forest—as an alternative to coffee grown in plantations created by clear-cutting the forest.

And have the next purchase you make (after buying this book!) be a pack of compact fluorescent light bulbs. By replacing a single wasteful incandescent bulb with a compact fluorescent bulb you will prevent, over the life of the bulb, nearly one-half ton of climate changing carbon dioxide from being emitted into the atmosphere. To underscore the point about the impact of collective action: if each of us took the step of replacing one 60-watt incandescent bulb with a compact fluorescent bulb it would, according to the federal Environmental Protection Agency's Climate Change webpage, be equivalent to removing the pollution from 1.1 million cars!

The great environmental visionary Woody Allen once said "I am at two with nature." With all humor there is a grain of truth behind it – most of us are like Woody these days, wishing to be "at one" with nature but more likely being "at two" with nature. If each of us makes the commitment to strive to "be at one" with the natural world by adopting the above lifestyle changes—and many more like keeping your cat indoors to prevent it from killing birds and small mammals,

composting your kitchen waste and lawn clippings, and saying no to plastic grocery bags—then we will indeed have moved to a better, more enlightened place: a place where we recognize and acknowledge we have but one island and one world to be at one with.

The more clearly we can focus our attention on the wonders and realities of the universe about us, the less taste we shall have for destruction.

—Rachel Carson (speech accepting the John Burroughs medal, April 1952)

John Turner Massapequa Park, Long Island October 2010