WELLFLEET CONSERVATION TRUST

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Wellfleet's Carlson-Briggs Family Blazes the Way to *Live Lightly on the Land*

Lonni Jean Briggs and William Carlson

On December 29, 2014, William Carlson and Lonni Jean Briggs of South Wellfleet donated a perpetual conservation restriction on a 1-acre parcel of their land to WCT. Bill and Lonni are the first landowners to respond and conclude a land commitment to the *Live Lightly on the Land* campaign by local land trusts to preserve private land in and around the Cape Cod National Seashore.

The Carlson family acquired an old woodlot off LeCount Hollow Road soon after World War II, and Bill's grandfather William J. Bradshaw built a simple camp cottage on the land. The camp passed to Bill's mother Ruth Carlson in 1959, just prior to establishment of the Cape Cod National Seashore. The property is now surrounded by land owned by the National Park Service. Including Bill and Lonni's children, four generations of the family have enjoyed the property, which fronts on Wireless Road, the road used by the Marconi crew a century ago to access the first transatlantic telegraph site. Bill and Lonni love to ride their horses Midnight and Daniel over the sand roads in the vicinity.

In the past few years, Bill, an accomplished pianist and band member, and Lonni, a lifelong artist, designed a contemporary house set into the wooded slope where the old camp sat. At the same time, they approached WCT with the notion to preserve the rear acre of their 2-acre with a conservation restriction. A CR enables a private land owner to retain title to the property, while extinguishing certain development rights and maintaining natural habitats. There are tax benefits to a CR donation.

WCT is one of the land trusts participating in the regional effort called *Live Lightly on the Land*, organized by the Compact of Cape Cod Conservation Trusts, Inc. in 2014 to encourage the 600 private landowners within the Seashore to keep some of their land preserved as natural habitat. "Not every family can make a large contribution to preserving open space in and around the Park," said Mark Robinson, Executive Director of the Compact, "but every one can do a little something to preserve the scenic and wildlife value of the land they own, while contributing to the enhancement of the Park. We are delighted to see the leadership set by Bill Carlson and Lonni Briggs."

Chequessett Neck Property into Perpetual Conservation

WCT has recently received the ownership of approximately two-thirds of an acre of coastal heath land at 940 Chequessett Neck Road. Like other land in the area, it is in the evolutionary cycle of succeeding to pine-oak maritime woodlands. In 2013, Jacqualyn Fouse and Joyce Erony acquired property abutting their own on the last hill before the well-studied dike of the Herring River. Since it was their intent to preserve the land, they approached WCT to see if there was a fit for their donation of the land to ensure its preservation. This lot is located between their house and the Number 3 green at the Chequessett Country Club.

WCT advised Fouse and Erony that a donation of this land would likely qualify for a Massachusetts Conservation Land Tax Credit (CLTC), but that going through such a process would take time. With the leadership of the qualified staff at the Compact of Cape Cod Conservation Trusts, lead by Mark Robinson and Paula Pariseau, we learned the donors would be eligible. As Mark has observed, Massachusetts is a leader among states in conservation practices with the CLTC program. Donors can receive a refundable tax credit from the Commonwealth if they donate property interests in land for perpetual conservation, either a fee interest (ownership) or a conservation restriction. This tax credit is available whether the donor is a resident (taxpayer) of Massachusetts, or not. There are some applications, appraisals, expenses and time that are encountered by the donor, but ably guided by the Compact. WCT President Dennis O'Connell noted that the WCT's advisor, the Compact, is the leading advisor in the State in achieving these tax credits for land donors.

WCT is very pleased to receive this donation of open space in an area where many have perceived the land as "open," but it is very susceptible to development. It will preserve water quality in a salt water-quality challenged area. Thanks, again, to Ms. Fouse and Ms. Erony.

August 15
Annual WCT Meeting, 10 a.m.
Wellfleet Senior Center
Featured speaker – Neil Shubin

September 12 (Rain date September 13)
9th Annual Guided Walk
9 a.m. Maguire's Landing Parking Lot
LeCount Hollow (gathering place)

November 7
State of the Harbor Conference
9 a.m. Wellfleet Elementary School

AmeriCorps Year in Wellfleet - Sasha Berns

Sasha Berns

A 2014 graduate of the University of Michigan and Connecticut native, Sasha Berns has spent a memorable year in Wellfleet assisting the Conservation Trust as a part of her assignment for AmeriCorps of Cape Cod. Her Individual Placements are one day a week with WCT and one day a week with the Town of Wellfleet Conservation Commission. The rest of the busy week is spent on group projects all over Barnstable County.

Twenty-three year old Sasha lent assistance on trail maintenance, GPS mapping and contributing to our website www.wellfleetconservationtrust.org. She and her AmeriCorps housemates combated constant shoveling and cabin fever with fun sledding and frequent trips to survey the beaches.

Sasha counts working with elementary and middle school children through the WETFEST program among her best experiences this year. Introducing young minds to aspects of nature they'd never known about was most rewarding, she says. Also clearing the herring runs in various Cape locations was satisfying task as the streams immediately ran more vigorously after the clean-ups. Desk and paper work, however, were the least favorite aspects of the year's experience for this outdoor lover. Hiking over Black Pond Rd. to the ocean and locating remote bay beaches were the personal activities Sasha especially enjoyed.

You still have a little time left to meet Sasha, hopefully out on one of the WCT trails. She completes her AmeriCorps service at the end of July. Next stop for her is graduate school at Columbia University, where she will study environmental health with a minor in toxicology.

We wish Sasha the best and thank her for her time with the Conservation Trust. We hope to see you back here often, Sasha, to enjoy Wellfleet's great outdoors.

SOUNDS FISHY TO ME!

At this year's Annual Meeting on Saturday August 15th, members of Wellfleet Conservation Trust (that's you!) will get to meet paleontologist, evolutionary biologist, best-selling science author and fellow WCT member **Dr. Neil Shubin**. You may remember him from ABC News, the Colbert Report or PBS where he hosts the show *Your Inner Fish*. The fossil he discovered of the transitional species between fish and land dwellers, *Tiktaalik rosae*, made him famous. The focus of Shubin's research is the evolution of limbs. Know someone with a broken arm or leg? Bring them along. His signature will transform their cast into an historic monument! The Annual Meeting will take place at 10 a.m. on Saturday, August 15th at the Wellfleet Council on Aging.

Guest Feature

Circumnavigating Mill Hill Island for the Bucket List
By Compact Director Mark H. Robinson

It was the kind of day where I woke up and said, "I don't know what I am going to do today, but I will surely do it outside." A warm, blowy late September day—a gift Cape Codders sometimes get. So I reached over the side of the bed and plucked out a slip from my Bucket List. "Visit Mill Hill Island," it read. All right, then.

My Job Lot kayak was just small enough to fit in the vehicle without car-topping, and I quickly made it over the scary Lieutenant Island bridge to my launch point in Loagy Bay. I wanted to catch the remains of the falling tide, knowing the harbor creeks would be mudflats within a couple of hours. There was Mill Hill Island, all five acres of it, sneering serenely at me across the water. It had foiled my last attempt at conquest, years ago when I tried walking across at low tide on a summer day. The island had sent out greenhead flies to harry me back to the mainland, taking chunks of Robinson back to gnaw at their leisure.

The paddle across was smooth, the warm southwest breeze pushing, me mostly steering. I beached on the western shore—no greenheads! too late in the season—and pulled up through the marsh grass. I had forgotten my sneakers, but my bare feet were toughened after the summer, so the mussel beds did not hurt too much.

I stretched and admired this piney oasis out in the marsh. Goldenrod was in blossom, skirting the toebanks of the island. The retreating glacier had dropped a kame deposit of sand and gravel here 12,000 years ago. The sea rose up around it, smoothing out its shores. I walked clockwise, looking for a way up the 32-foot high hill.

I rounded the northern corner and found a survey stake. It remained from a scheme to build a boathouse here in 2013. The Wellfleet Conservation Trust bought out the lot instead, saving the last private parcel and keeping the island forever wild. The Town and WCT now own all the lots for conservation. It was not always such. The island gets its name, not from a windmill, but from the tidal-powered grist mill built in the creek by Thomas Paine in the 1700s. Mill Hill was later plotted into the same tiny 40'x80' house lots in 1890 as Lieutenant Island had been. Fortunately, no bridge was built here, not worth the effort or expense to so small a hummock. So it has stayed a micro-refuge for wildlife. As I would see soon.

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Circumnavigating Mill Hill Island for the Bucket List

continued

The northeast corner sloped gently up into the interior. A sole piece of litter. I stuffed the empty beer can in my pocket, obviously discarded by a drunken gull. I summited the peak at the southwest corner and admired the view out over the harbor to Great Island. I had achieved my goal for the day. Now to return.

On the west slope I found a coyote den, first one entrance, then its emergency exit. Nearby was a ground nest of yellow-jacket wasps, pawed over, presumably by the coyote looking for underground honey. I did not linger, but did my musing back on the beach about the drama that must have unfolded during that aborted excavation. Does a coyote ever try that twice?

A glance at the ebbing creek interrupted the wondering. Yikes! I had misjudged Wellfleet tides again. I circumnavigated the island, so as to be able to say I had, but it involved as much poling in the mud as paddling. Back home, I put the slip back into my Bucket. Because I know I will return again. You go too.

Mark H. Robinson has advised the WCT since 1986.

In Memoriam

Conservation Trustees were saddened this winter by the passing of four strong supporters of conservation. **David Ernst**, although not a Trustee, was very instrumental in our formation during his time as a Wellfleet Selectman. Passionate about conservation, he left property to be kept in conservation in perpetuity. **John DiBlasio**, a former Chairman of the Conservation Commission, always joined in the Adopt-A-Highway program right up until he moved away from Wellfleet. **Edwin Reynolds** was another Conservation Commission Chairman for many years. **Dr. Shervert Frazier's** family was very connected to WCT. His son D. Alan Frazier was one of our founding members. Related family property in the Old Chequessett Neck Rd. area was donated to the Trust. All four families specified that memorial donations to the Wellfleet Conservation Trust be made in the names of these accomplished men. We will remember **David Ernst, John DiBlasio, Edwin Reynolds and Dr. Shervert Frazier** for their dedication to conservation.

OF MILKWEED, MONARCHS, AND MIGRATION

BY TRUSTEE MARK GABRIELE

Tolerant of drought and poor sandy soils, it is no surprise that *Asclepias syriaca* (common milkweed) is native to Cape Cod. Milkweed is the well-known favorite of the monarch butterfly, whose relationship to this perennial wildflower is, in fact, much deeper than it first appears. Monarchs have evolved a magnificent strategy of migration to find the milkweed in season, and then escape the brutalities of winter down south. But will the monarchs be returning to Wellfleet this spring? And if so, in what numbers?

Their journey is one of Mother Nature's most remarkable stories and was not revealed until 1975. The first piece of the puzzle was solved by Canadian entomologists Fred and Norah Urquhart. By painstakingly tagging and tracking individual insects for decades, they were able to establish the monarchs' migratory behavior. But it wasn't until Kenneth Brugger and Catalina Trail made the breathtaking discovery of mountainsides in Mexico ablaze with millions upon millions of fiery orange monarch wings that the picture became complete, and their winter destination was charted.

The biological mechanisms of this migration are extraordinary and involve a specially adapted sequence of butterfly generations. After 3 generations of butterflies, each with the normal lifespan of 6-8 weeks, there emerges a special 4th generation with both an epic challenge ahead and the heroic capabilities to suit. The 4th generation individuals hatch in fall when the milkweed is starting to die back. The caterpillars eat and pupate like all the others, but when these butterflies emerge from their chrysalis, they will remain reproductively immature and will pack on 6 times the normal fat reserves, drinking wildflower nectar for the journey. Rather than mating, they will begin the 2,300 mile migration from Wellfleet to central Mexico, where they will hibernate on fir trees until spring. After the season changes, they awaken, complete their maturation, and return north in time to find new shoots of milkweed emerging from the ground. They mate, lay their eggs and then die – making the lifespan of this 4th generation 6-8 months. And now we come to the most staggering detail of all, one that is still a subject of research: their flight path seems to be inherited. When this 4th generation butterfly arrives at the mountainsides of Mexico to hibernate, it returns to *the same tree on the same mountain from which its great-grandparent departed*!

School children are filled with wonder to learn that a salmon returns to the same stream wherein it hatched to spawn. This is similar but different in one critical way: the salmon that returns is the same individual organism that left, but the butterfly that returns is *separated by 4 generations* from the one that departed. Here we can see the sheer virtuosity of Mother Nature's hand revealed in something so subtle and silent, it was taking place right under our noses and never noticed, let alone understood, until modern times. It's not fully understood still. One has to wonder: how many other similar examples might there be of which we haven't even the slightest inkling?

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OF MILKWEED, MONARCHS, AND MIGRATION

Continued

The monarch has been making headlines lately with deeply troubling news of dwindling migrations and seriously impoverished numbers. In February, the U.S. Fish and Wildlife Service reported that populations have *collapsed over 96%* over the past few decades, from an estimated 1 billion in the mid 1990's to just 35 million in 2014, a staggering loss of 970 million insects. There seems to be more than one reason for the decline. Illegal deforestation in Mexico has been cited, but the big problem seems to be on our side of the border, where the milkweed just isn't wanted. Genetically modified crops allow for extensive agricultural use of herbicides to kill crop weeds like milkweed, and the plant is not desirable for landscape use. In a manicured garden it can make the impression of a hillbilly at a society ball. But the same plant we dismiss from our gardens and eradicate from our fields inspired the monarch to perform somersaults of evolution – perhaps even to the extent of inventing "genetic memory" – just to capitalize on its full geographic range and growing season.

Monarch migration, a phenomenon that took countless millennia to evolve, may be unraveling – all within in the span of one human generation. Since record keeping began in 1993, the overwintering population in Mexico has dropped to its lowest point, and the Center for Biological Diversity et al have submitted a petition to the Secretary of the Interior Sally Jewell to list this iconic species as officially threatened. It is under review now.

Meanwhile U.S. Fish & Wildlife Service Director Dan Ashe launched a program to build a network of private and public conservation partners to plant milkweed and restore their habitat, and held a press conference to urge all hands on deck to prevent extinction of this butterfly. "We can create habitat," he said, "in back yards, school yards, along roadsides . . . in every tiny patch of open space." Ashe's exhortation echoed the sentiment of *Monarch Watch* director Chip Taylor when he wrote, "To assure a future for monarchs, conservation and restoration of milkweed needs to become a national priority."

If we were to draw a moral from this tale, it might be this: to weed is human – to conserve, divine.

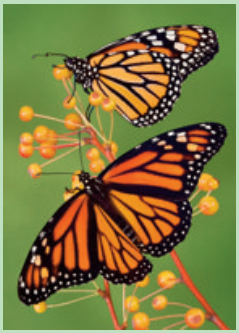
Wellfleet Conservation Trust will be planting over a thousand milkweed seeds at Head of Duck Creek this spring.

ROLLING OUT THE RED CARPET FOR MONARCHS AT HEAD OF DUCK CREEK

Head of Duck Creek is in some ways a story of rags to riches. When WCT acquired the property in 2011, it was a wasteland of trash, a dilapidated shack, and overrun with invasive species. After removing debris and non-native vegetation from the 1.24 marsh-side parcel, it was restored to its original state of being valuable wildlife habitat. Since that time, it has served as nesting grounds for the endangered diamondback terrapin; and we know of 102 baby turtles have hatched so far at this site . . . and counting!

Now, we're planning to increase its wildlife riches by creating a haven for monarch butterflies. Head of Duck Creek (HoDC) is already home to a small stand of milkweed plants where monarchs have been observed. Sadly, the monarch is yet another species we are very likely to see officially added to the endangered species list in the near future. This beautiful butterfly, emblematic of the North American continent, is literally losing ground with each passing day and its numbers are plummeting – largely for want of milkweed.

On May 7th, WCT will hold a work day to plant milkweed seeds at HoDC which were saved from last year's plants. Monarch expert Sasha Berns of AmeriCorps will lend her guidance and is excited to be doing so. With your support, we hope to transform this site into a vibrant way station for the monarch butterfly for many years to come.



WHAT'S IN A WING?

At the University of Michigan, Sasha Berns studied the effects of diet and gender on wing shape in monarchs. She observed that a significant difference exists between the wing shapes of males vs. females. She then raised 5 different populations of monarch butterflies, each on a different species of milkweed, and observed that each plant reared butterflies with differing forewing shape. In particular, this wing shape varied with the varying cardenolide concentration of the milkweeds. Cardenolides are the toxic steroids present in milkweed sap that monarchs use as a defense mechanism against their predators. She was excited by her findings, which warrant further research to determine how these wing shape variations relate to the flight ability and evolutionary fitness of the butterflies.

SPOTLIGHT ON...
THE GREAT HORNED OWL

Of all the Wellfleet "Greats" – Island, Pond, blue heron, white shark – there's one you are more likely to have heard rather than seen. The Great Horned Owl *Bubo virginianus* is a year round resident of our woodlands. Listen for its typical five-beat *hoo hoo hooooo hoo hoo* call at dawn and dusk. Owl voices, after you get to know them, are as distinguishable as neighborhood dogs – quavery, deep or insistent.

After dark, the Great Horned Owl gets serious about hunting and goes silent. These nocturnal birds of prey eat everything available in their range: small mammals, reptiles, amphibians, fish and insects. They help keep the rodent and rabbit population in check. They also have an appetite for skunk. Watch out for your small pets at night.

You might get a glimpse of a Great Horned Owl if crows mob its roosting place early in the morning and disturb it enough that it takes flight. If you find the tree where an owl ordinarily roosts, check below, and you can learn what it had to eat the previous night. Owls regurgitate the indigestible fur, feathers and bones in compact pellets within 6 to 10 hours after eating.

The large brownish owls have very prominent ear tufts, impressive wing spans, and powerful talons that snatch prey of up to 2 or 3 times their weight. Their mottled coloration helps camouflage them by day while they sleep.

Although mating season in the first months of the year is the liveliest time for Great Horned Owl calls, you might investigate "hoo's" out in the woods during a warm twilight in summer.

Keeping Our Fingers Crossed about the Herring

Each spring since 2009 the Friends of the Herring River have sponsored the herring count on a site inside the National Seashore on the banks of the Herring River. The Association to Preserve Cape Cod, the Division of Marine Fisheries lend their technical assistance. Volunteers for the Friends record climate conditions and the actual fish counted. From there, the State's Division of Marine Fisheries estimates the migrating and spawning population. The count season last year ran from April 1 to May 31 and produced the highest numbers since the effort began. Population estimates in 2014 were 62,000, exceeding expectations for that year and greatly exceeding the 17,000 estimate of 2009.

Drs. John Riehl and Barbara Brennessel of the Herring River Restoration Committee caution that the good count and estimate do not confirm a recovery for the herring. The Division of Marine Fisheries waits to consider long-term sets of at least ten years of data before drawing any conclusions about upward trends in the herring population.

The Herring River Restoration project will make the water in the river cleaner and deeper, Dr. Riehl predicts. That will also make it easier for young herring to swim downstream and pass through the dike into the harbor. Even now before the restoration, Herring Warden Dr. Ethan Estey works on keeping the riverway clear. In March he and an AmeriCorps crew eradicated golden iris which was choking the river. Taking care not to drastically alter the waterway's overall system, they also removed leaf litter and snags which impede the herrings' progress. As of this writing, Dr. Estey had not yet seen a herring, but he said they did find a lively 3-foot long eel during the clean-up.

There are many factors to be studied regarding the herring population. River temperature does not seem to be determining factor for the dates of return each year for the four-year old alewives. Past Herring Warden Jeff Hughes said research on ocean and estuary temperatures need to be studied also. So far this year, the water temperatures have not been as warm as past years, but migration is a rite of spring that will happen around the time the forsythia bloom.

No one can say with certainty that the herring are making a true comeback, but the numbers suggest that there is that possibility. We are keeping our fingers crossed.

President's Letter - Spring 2015

Dear Members and Friends,

A few newsletters ago, I started off by saying what a summer we had, referring to the busy activities and celebrations in Wellfleet. Now I can say what a winter we had! This winter brought us snow, wind, ice floes (that brought a surprising number of tourists)... and more snow. As it seemed to be a topic in the local schools, my grandchildren told me the difference between icebergs and ice floes. Icebergs are from glaciers made from fresh water. Ice floes are frozen salt water. We had lots of ice floes as the national news documented. Soon we will have flowers galore and then a wonderful summer.

WCT's mission is to preserve open space to protect the valuable resources such as the sole sourced aquifer and habitat for fauna and flora. Our turtle gardens for the incubation and hatching of Diamondback Terrapins at the Head of Duck Creek have been fun and successful. We are expanding the milkweed growth at HoDC in order to become a recognized Monarch way station. What an education for all ages. We work with others, such as the Town's Open Space Committee and the Conservation Commission. We are pleased to partner with Mass Audubon who do such a good job on their Wellfleet Bay Sanctuary. Wellfleet is perceived as having a lot of open space, but much of that still needs to be permanently protected so it will be retained as open space.

How to say this with the right balance? WCT has been receiving several memorial donations for which we are very appreciative, but it has been with the loss of many good friends for our cause. Just in the recent couple of months we have lost former selectman David Ernst, former chairs of the Conservation Commission John DiBlasio and Edwin Reynolds and a man with many WCT connections, Dr. Shervert Frazier. All memorial donations are restricted to our Land Acquisition Fund, for future land preservation.

Our sincere thanks for your support. Please join our Annual Meeting on August 15th with Dr. Neil Shubin. Otherwise, our all volunteer Board stands ready to respond and serve when you contact us.

Sincerely
Dennis O'Connell, President/Trustee
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Thank You For Your Membership

We appreciate your renewal using the enclosed envelope.

WELLFLEET CONSERVATION TRUST

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