

Each quarter SOFO features eco-links, written by a member or friend of the Museum. If you wish to submit an article, please contact us.

## <sup>eco</sup>links The Resilient and Wily Coyote

by Mike Bottini Wildlife Biologist, Seatuck Environmental Association Member, Long Island Coyote Study Group

During the 1970s, while an undergraduate at St. Lawrence University in northern New York, my ecology professor was studying a new canid species that had first appeared in New York State in the 1920s. It most resembled the coyote *(Canis latrans)* from out West but was significantly larger in size and weight. For decades biologists debated the creature's genetic origin, with many deducing that it must be a coyote-dog hybrid, a conclusion that led to its initial name: the Coy Dog.



Note the variable fur colors on these coyotes: gray, black and brown on the coyote at the top, photographed in Nassau County – Credit – Seatuck Environmental Association, and blond/red on the one on the bottom found on Fishers Island – Credit – Tracy Brock. Both have the classic coyote bushy, black-tipped tails that hang down.

With advances in DNA testing, that long-standing debate was settled. The Coy Dog is now known as the Eastern Coyote (*Canis latrans var.*), one of 19 recognized subspecies of *C. latrans*, with a genetic soup whose main ingredients are Coyote (60+%) and Wolf (25+%), along with an occasional touch of domestic dog DNA (as much as 10%). The significant contribution of wolf DNA led to another debate. Some biologists argue that this animal should be considered a new species: the Coy Wolf (*Canis oriens*). That debate has yet to be settled.

Today the coyote is widely distributed throughout North and Central America. It is found in every state except Hawaii, every Canadian province (including Newfoundland and Prince Edward Island), and every Central American country except Panama.

That wasn't always the case. Although there had been some speculation (and more debate) over the possibility that the canid occupying the Northeast, and referred to as the "Brush Wolf," many years ago may have been a subspecies of the coyote, archeological research into that question seems to indicate that, prior to the arrival of Europeans in North America, coyotes were not found east of the Mississippi River or east of Hudson's Bay. Biologists theorize that the coyote expanded its range eastward to fill the ecological niches left vacant when the Gray Wolf (*Canis lupus*) and Cougar (*Puma concolor*) were extirpated by way of bounties and poisoning.

Ironically, the coyote was also targeted in the war against large predators. It began in earnest in the mid-1800s, with ranchers and staff from the federal Division of Biological Survey shooting, trapping, and injecting animal carcasses with poisons. The goal was to eliminate the coyote and wolf on the Great Plains.

By 1915 the wolf was extirpated, leaving the coyote as the largest predator in much of the West. Between 1915 and 1947 nearly two million coyotes were killed. In 1992 technicians employed by a federal agency called Wildlife Services killed 98,000 coyotes. But the coyote not only endured, compensating for the losses with larger litters, it actually continued to expand its range in North America.

The island of Hawaii, at four thousand square miles, is the largest island in the United States. The 14 next largest islands are all located in the state of Alaska, with one exception: Long Island, New York. At 1,400 square miles, Long Island is the 10th largest island in the U.S. and the largest in the lower 48 states.

What does that have to do with coyotes? Long Island remains the only major island or landmass in the coyote's current range that has not been completely colonized by breeding pairs.

In 1994 coyotes made their way into the Bronx. Wildlife biologists recently documented four breeding pairs there. Expanding from the Bronx to Long Island involves crossing the East River, a challenge that seems to have slowed but not stopped the coyote. A mere 0.3-mile swim from Hunt's Point in the Bronx lands one at Rikers Island, and a 0.75-mile long trot across the Rikers bridge leads to Queens near LaGuardia airport.

2016 marked the first year that a pair of coyotes successfully bred Continued on next page

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on Long Island, producing a litter of eight pups in a den adjacent to LaGuardia airport's employee parking lot. Although coyotes can live



Two of four pups born on Long Island this year, with Mom in the background Credit –Seatuck Environmental Association

as long as fourteen years in the wild their average life expectancy is six to eight years. The Queens crew did not last nearly that long. Well intentioned employees began feeding the coyotes, resulting in the animals losing their fear of people. Airport officials decided that the coyote family posed a threat to their employees and ordered that the breeding pair, a sub-adult "helper" and all eight pups - 11 animals in all – be trapped and killed. Only one managed to elude capture.

Out on the East End, a coyote was first sighted in 2011 by Scott McMahon north of Water Mill and photographed by Rick Wesnofske two years later. It has been photographed and videoed several times since, ranging between North Sea and Southampton Village east to Wainscott. That individual may have died of old age before finding a mate.

This year we've documented three pairs of coyotes in Nassau County, and we have evidence of successful breeding at one of those sites. Another apparently solo coyote has been residing on Fire Island this year. And coyote photos, tracks and scat, have been documented on the North Fork.

We assume that the Bronx is a major source of dispersing coyotes reaching Long Island. The presence of coyotes on the East End, far from established pairs in western Nassau County, raises an intriguing question: could coyotes reach the East End of Long Island via the Plum Island – Great Gull Island – Fishers Island archipelago?

Fishers Island has been home to at least one pair of breeding coyotes since 2012. At four square miles in size, most coyotes born on Fishers would have to take to the water to disperse. Orient Point is a daunting 11 miles distant with formidable currents at "The Race" and "Plum Gut". On the other hand, the route includes an archipelago of small islands that provide resting and feeding stops with a maximum open water span of 4.6 miles.

Could coyotes manage a nearly five-mile swim in swift current? We know that at least one coyote completed the four-mile swim from

the Elizabeth Islands to Martha's Vineyard, so a 4.6-mile swim is not out of the realm of possibility. Most young coyotes might perish in the attempt, but only a few need to successfully make the journey to establish a breeding pair on Long Island's East End.

It is simply a matter of time before this adaptable creature thrives here on Long Island. This raises some interesting questions. What impacts will they have on our deer, turkey, red fox, and raccoon populations? Will our feral cat colonies disappear? Will the coyote hinder ground nesting birds and shorebirds through predation, or will they help these species by reducing fox, feral cat, and raccoon predators?

With regard to deer predation, the results of research elsewhere have shown that coyotes do not reduce deer numbers on a regional scale. With the exception of certain snow conditions, healthy deer can outrun coyotes. Most predation on live deer involves fawns during the short window in early summer when fawns can't outrun coyotes. Although deer comprise a significant portion of the coyote's diet in winter and spring, these are mostly scavenged deer that died from motor vehicle collisions. It will be interesting to see if this holds true for eastern Long Island's overabundant deer.

With regard to red fox and raccoon, the impact of coyotes seems to be the result of avoidance and displacement, as opposed to predation, reducing numbers of these "mesopredators" by forcing them into smaller areas on the landscape.

To answer these questions, a number of biologists and conservationists formed the Long Island Coyote Study Group. We have been monitoring remote cameras and collecting and analyzing coyote scat for a diet study and DNA relatedness research.

One of our most important goals is to educate Long Islanders about the coyote and how to best co-exist with this new neighbor. In a press release issued in January of this year, NYSDEC Commissioner Basil Seggos states, "Coyotes are an integral part of our natural ecosystem and provide many benefits to New Yorkers. Coyotes will naturally avoid interacting with people if their fear of people is maintained, but if coyotes learn to associate people with food, conflicts can occur." As with all our non-domesticated fauna, it is best to keep the "wild" in wildlife and refrain from feeding them.

To put the danger of having coyotes as neighbors in perspective, an average of 4.5 million Americans are bitten every year by dogs, and between 30-50 per year die from dog bites. In 2019, 48 people were killed by dogs. In contrast, over the five-year period between 1998 and 2003, 48 people were bitten by coyotes, an average of 10 per year. Coyote attacks have resulted in two deaths: one in 1981 in California and another in 2009 in Nova Scotia.

The NYSDEC guidelines to reduce or prevent conflicts with coyotes include:

- do not feed coyotes
- do not leave pet food outside
- make any garbage or compost inaccessible to coyotes
- do not allow your pet cats or dogs to run free

For more information visit https://seatuck.org/coyotes/ Join us on Saturday, October 30 at 10AM at SOFO where Mike will deliver a presentation for adults and teens entitled: Long Island's New Wild Canid: the Eastern Coyote. Be sure to reserve your spot early, as this will be a very popular program. There will be lots of time after Mike's talk for Q&A. South Fork Natural History Museum (SOFO) Calendar At A Glance Autumn 2021

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Find us on Facebook 👎 Twitter 🌱 Instagram 🕥



A full description of each program is listed on the SOFO website: www.sofo.org/calendar



To enter the Museum without a mask proof of vaccination is required!

## **PLEASE NOTE!**

The programs listed in this Calendar of Events will take place either in person or virtually, depending upon the COVID-19 situation. For that information, please look at the calendar listings on the SOFO website at: www.sofo.org/calendar

For SOFO members: programs are free, unless otherwise stated.

Level of membership indicates the number of people entitled to a free program.

#### For SOFO non-members: there is a fee.

Please contact us at: info@sofo.org for fee information or refer to the SOFO website at: www.sofo.org If you are not already a member we invite you to join the museum. Find out about membership levels at www.sofo.org/membership

For full information on the South Fork Natural History Museum (SOFO), including entrance fees and hours of operation, please refer to the website: www.sofo.org

### **SOFO** Mission

The mission of the South Fork Natural History Museum (SOFO) is to stimulate interest in, advance knowledge of, and foster appreciation for the natural world with special emphasis on the unique natural environment of Long Island's South Fork.

## Calendar At A Glance

Key: A-Adults T-Teens C-Children F-Family AA-All Ages

A full description of each program is listed on the SOFO website at www.sofo.org/calendar. Advance reservations are required for all programs.

October Saturday, October 2, 10AM - Andy Sabin's Annual Salamander Log Rolling: F Saturday, October 9, 10AM-1PM - Celebration of the Long Pond Greenbelt - Hike, Play, Explore: AA Sunday, October 10, 2PM-4PM - SOFO's 6th Annual Climate Change Conversation: A/T/C8+ Saturday, October 16, 8AM - Fall Bird Migration with Joe Giunta at Promised Land: A Saturday, October 16, 10:30AM - For Kids! Make Your Own Nature Book: Imagination, Storytelling, & Artwork: C8+ Saturday, October 16, 2-3PM - Birding with Frank at Bridge Gardens: A/T/C8+ Sunday, October 17, 10AM - SOFO's Young Birders Club Meeting: Ages 8-18 Wednesday, October 20, 6:30PM - Full Hunter's Moon Hike with Friends of the Long Pond Greenbelt: AA Saturday, October 23, 10:30AM - Autumn Leaves - Rub, Draw, Paint: C9+ Sunday, October 24, 10AM - Enchanted 2.5-mile Trail Walk to The Ghost Forest: A/C5+ Saturday, October 30, 10AM - SOFO's Young Environmentalist (YES!) Meeting: Ages 10-16 Saturday, October 30, 10AM - Long Island's New Wild Canid: The Eastern Coyote: A/T Saturday, October 30, 10:30AM - Spooky Spider Search: A/T/C8+ November Saturday, November 6, 10:30AM - For Families & Friends! Foster Your Child's Native Curiosity and Wonder About Nature for the Future of Our Planet: A Sunday, November 7, 9:30AM - Fall Colors & Wildlife-4.5-mile Trail Walk at Mashomack Preserve, Shelter Island: A Saturday, November 13, 9:45AM-1PM - SOFO Nature & Bird Watching Cruise: A/T/C10+ Sunday, November 14, 2PM - SOFO Cleans the Beach - Help Needed: AA Friday, November 19, 5:30PM - Full Frost Moon Hike with Friends of the Long Pond Greenbelt: AA Saturday, November 20, 10:30AM - Nature Walk & Log Rolling in Northwest Woods : A/T/8+ Sunday, November 21, 10AM - SOFO's Young Birders Club Meeting: Ages 8-18 Friday, November 26, 10AM - Annual Walk it Off Walk with Friends of the Long Pond Greenbelt: A/T Saturday, November 27, 10AM - SOFO's Young Environmentalist (YES!) Meeting: Ages 10-16 Saturday, November 27,10AM-4PM SOFO's Free Annual Thanksgiving Open House: AA December Sunday, December 5, 1:30PM - Seal Walk at Cupsogue Beach County Park, Westhampton: A/C6+ Saturday, December 11, 10:30AM - SOFO's Annual Decorate a Holiday Tree for the Birds: F Sunday, December 12, 9AM - The Barrier Beach Wildlife of Cupsogue County Park: A/T/C/10+-Sunday, December 12, 10AM - A Walk Back in Time – 3-mile Trail Walk at the William Mulvihill Preserve: A/T/C8+ Sunday, December 12, 2PM - SOFO Cleans the Beach — Help Needed: AA Wednesday, December 15, 7PM - Owls by the Light of the Moon with Joe Giunta: A Saturday, December 18, 10AM SOFO Young Environmentalist (YES!) meeting: Ages 10-16 Saturday, December 18, 10:30AM SOFO Shark Research & Education Program Presents: Exploring Sharks Through Their Form & Function: AA Saturday, December 18, 5:30PM - Full Cold Moon Hike with Friends of the Long Pond Greenbelt: AA Sunday, December 19, 10AM - SOFO's Young Birders Club Meeting: Ages 8-18

December continued

### Outdoor One-hour Nature Adventures with SOFO Environmental Educators

School Holiday Break 10:30AM – 11:30AM For Children of All Ages

Monday, December 27 Check Out the Winter Bugs in Vineyard Field **Tuesday, December 28** Animals in Winter – Who is Sleeping? Who is Awake?

Wednesday, December 29

Winter Birds of Vineyard Field

Thursday, December 30

Nature Treasure Hunt in Vineyard Field



The Food Pantry also distributes new unwrapped toys to parents in need who can choose gifts appropriate for their children. The Pantry is happy to receive toys for all ages from infants to teenagers.

## Thank You! SOFO's 32nd Annual Summer Gala Benefit (The Journey Forward: Reconnecting Through Nature) On July 31 was A Wonderful Success



Tent Ambiance, Photo Credit - Rob Rich/SocietyAllure.com

by Diana Aceti, SOFO Director of Development & Special Events

We would like to thank all of our 400 wonderful guests, our donors who supported us but could not attend, our sponsors, our Board of Directors, our Advisory Council, our volunteers and staff who helped ensure that SOFO's 32nd Annual Summer Gala Benefit (The Journey Forward: Reconnecting Through Nature) on July 31 was a smashing success.



Honorees Kim & Greg Lippmann & Family Photo Credit - Rob Rich/SocietyAllure.com

This year's summer gala benefit honored Dr. Indy Burke, an ecosystem ecologist and the Carl W. Knobloch, Jr. Dean at the Yale School of Forestry & Environmental Studies; Michael B. Gerrard, Andrew Sabin Professor of Professional Practice and Director of the Sabin Center for Climate Change Law at Columbia Law School; Chef Kerry Heffernan, Chef at Grand Banks in Manhattan, a seafood sustainability and conservation leader who serves on the City Harvest Food Council; and environmentalists and long-time SOFO friends Kim & Greg Lippmann (SOFO Board Trustee) and their family. Funds raised at the gala benefited SOFO's educational and environmental programs and initiatives empowering families to be responsible stewards of our planet.

During the VIP cocktail reception, guests enjoyed music by Alfredo Merat, and a special appearance by Ambassadors of SOFO's Native Wildlife from the Evelyn Alexander Wildlife Rescue Center, who treated guests with access to rare hawks and owls. The benefit gala's main reception was hosted by Carole Crist, Amer-



ican businesswoman and former First Lady of Florida; and Dottie Herman, CEO of Douglas Elliman Real Estate LLC. A delicious reception dinner by Elegant Affairs Catering was served and guests enjoyed cocktails and beverages provided by Amagansett Wines and Spirits, Two Chicks Cocktails, Channing Daughters Winery, J.A. Baczewski Monopolowa Vodka and Gin, Lambay Irish Whiskey America. Hampton Coffee Company joined us with its signature mobile coffee truck, and donated coffee drinks

Jane Gill and Jean Shafiroff with Great Horned Owl, Meep Photo Credit - Rob Rich/SocietyAllure.com throughout the evening. Entertainment included performances by award-winning magician, Modern Mentalist Kevin zing DI Dania who

Nicholas, and the amazing DJ Danja, who had everyone dancing until 10pm. This year we welcomed WHIP Fundraising and Guest Auctioneer Gabriel Buto to host our Live Auction. Our media sponsors included Dan's Papers, Hamptons Magazine, James Lane Post, The Express News Groups, and The Village Voice.



Martha Waddell and Ada Samuelsson Credit - Lisa Tamburini

We send a very special thank you to Andy Sabin and the Andrew Sabin Family Foundation.

We hope to see you at our 6th ANNUAL CLIMATE CHANGE CONVERSATION at the Museum on OCTOBER 10th from 2PM-4PM. For information, please contact Diana Aceti at daceti@sofo.org.





Dancing to the sounds of DJ Danja Photo Credit – Rob Rich/SocietyAllure.com



Frank Quevedo, Diana Aceti, Honoree Chef Kerry Heffernan and Andy Sabin, Credit – Michael Heller Creative 2021



Honoree Indy Burke and Andy Sabin Photo Credit – Rob Rich/SocietyAllure.com



Honoree Michael Gerrard and Andy Sabin Photo Credit - Rob Rich/SocietyAllure.com

# Snorkel Adventures on Oahu

by Ollie Dianora-Brondal



Ollie, Satisified after a good snorkel trip! Credit – Claes Brondel

My name is Ollie and I am 8 years old. I was born into water so I have a strong connection to it. I love to snorkel, swim, body-board, and my favorite of all — surf.

In March 2021, my family went to the island of Oahu, Hawaii. We mainly camped and we went around the whole island to explore different environments. While traveling around, we snorkeled in many different areas of Oahu. While I was snorkeling, I swam with a laminated chart of the local fish so I could keep track of the fish I saw.

Our first snorkel trip was to a place called "Sharks Cove" on the North Shore of Oahu.

This is not your average beach with sand to sit on. A long time ago a volcano erupted and left behind huge boulders of lava rock. This is very sharp and can cut your feet so you need to wear water shoes while snorkeling here! It is also difficult to find a place to sit between the sharp lava rocks. There is a big area to snorkel with a wall of lava that protects this area from waves so it is safe to go around but it is very shallow in low tide and you have to be careful because there are hundreds of sea urchins. I saw many tropical fish here including the Moorish Idol, Saddle Wrasse, and the Unicornfish.

Further to the east was our second location called Kuilima Cove. This cove was also protected by a lava wall but it was larger and the beach was made up of sand. In the center was a huge rocky area which was home to many fish. We saw the Spotted Puffer, the Bandtail Goatfish and a juvenile Rockmover Wrasse. I was very excited to see the State Fish of Hawaii called "The Humuhumunukunukuapua`a" or Picasso Triggerfish.

Our third location was Hanauma Bay which is a State park and very regulated. During the pandemic, it was closed for eight months. In my opinion, I think that people swimming around and chasing the fish and standing on the reef is a big problem. The reef is a living organism and by standing on it you could easily kill it. Closing the reef for eight months ended up



Humuhumunukunukuapua`a or Picasso Trigerfish – Credit – Rob/www.flickr.com/ people/bbmexplorer

being a good thing to give the reef a break. Before the pandemic there were up to 3,000 visitors a day and now they only allow about 700. This is much more controlled and hopefully, the reef can repair itself.

At the time of our visit you had to go in person to get a parking pass. Since we were camping nearby on an organic farm, my dad could get *Continued on back page* 



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to the park at about 6AM to get our parking pass. He said that it sold out very quickly! When we got to the park during our time slot it was slightly rainy but when we got in it had cleared up. There were SO many fish. We swam over to the west side of the reef and there was a big dip down where it got very deep. It was amazing to see all of the depth and the fish. It was very disappointing to still see people standing on the reef after we all had to watch a video that explained all of the rules before we were allowed into the park.

Our final location was Waikiki Beach. We went back to the place where we practiced when we first arrived. It ended up being very high-quality snorkeling. There are huge coral rocks and when we went past those, there was a HUGE drop down about 20 feet and I dove and touched the bottom! As we swam into shore we saw a school of cornetfish which can get up to five feet long and are extremely thin.

Overall, Hawaii was a great place to surf, boogie board, swim, and especially snorkel. I cannot wait to get back and maybe even try to snorkel in some of the other islands!

#### Author: Ollie and his family are SOFO members.

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Through a partnership with Stony Brook Southampton Hospital's Regional Tick-Borne Disease Resource Center the South Fork Natural History Museum (SOFO) is pleased to offer SOFO members and all those visiting the museum a copy of the Tick-Borne Disease Reference Handbook for Long Island and the Northeast, created and published by the Resource Center. In addition, all members will receive a copy of the handbook upon renewing their SOFO membership. All new members will receive a copy in their new-membership package.

The fifty-page full-color illustrated guide is authored by members of the Resource Center's Medical and Scientific Advisory Panels, and covers ticks, the diseases they transmit, proper tick removal, as well as prevention strategies.

This initiative is a continuation of past collaborations with SOFO and the Tick Resource Center, which have included an informational table on Earth Day, and educational lectures on tick disease.

SOFO and the Tick Resource Center recognize the importance of educating both residents and visitors about the presence of disease-carrying ticks in our natural environment and the practical ways we can enjoy the outdoors while staying safe.

We wish to acknowledge the efforts of Jane Held, a member of SOFO's Advisory Council, for enabling SOFO to offer this handbook to SOFO members and all museum visitors.

### About the Regional Tick-Borne Disease Resource Center at Stony Brook Southampton Hospital

Since 2014, the Regional Tick-Borne Disease Resource Center has educated both the public and the medical community about the numerous tick-borne diseases prevalent on Long Island and in the Northeast. The Resource Center's popular tick disease "help line" receives as many as eight hundred calls a year from residents and visitors seeking information about ticks and the pathogens they carry, help with referrals to appropriate medical providers, information about testing, and prevention tips. The Center's educational outreach extends throughout Suffolk County bringing as many as forty-five separate educational lectures each year to libraries, civic organizations, local town governments, garden clubs, and schools. The Center also hosts full day medical symposia for physicians, inviting experts from prestigious medical research institutions to lecture on tick disease. This furthers its mission to promote collaboration among the local medical community, and helps to strengthen their ability to combat the epidemic of tick-borne disease.

Regional Tick-Borne Disease Resource Center 189 West Montauk Highway Suite D-5 Hampton Bays, NY 11946 (631) 726-TICK (8425) www.EastEndTickResource.org



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