## BIOPHILIC CITIES JOURNAL / PARTNER PROFILE



## **Gotham Whale: Sighting and Tracking Sea Mammals Along Northeastern City Coastlines**

By Paul Sieswerda

"The whales are coming to me...," or at least that is how it feels to

Since my retirement in 2009, I had been working with the American Princess, a tour boat out of Rockaway, Queens. I served as a naturalist on winter cruises to see the seals on Swinburne Island, a small haul-out about a mile east of Staten Island's South Beach. This was a nice way to stay connected to marine mammals, an interest of mine throughout my career at both the New England and the New York Aquariums. Each year, the number of seals increased, and it was a fun activity without many demands. All that changed in 2010 when the captains of the American Princess began to get

reports of whales during the summer. "Whadayasay we try some whale cruises next year?" they asked. "OK," says I, and with that, the course of Gotham Whale was charted.

2011 was a year of "adventure cruises" - "adventures" because we didn't know if we would see a whale or not. Over the entire summer we had but three sightings, for a total of five whales seen - a sighting is from one place at one time and can include more than one whale. The American Princess is a commercial operation that, like a taxicab, needs paying customers to make a living and uncertain whale sightings do not make a profitable business plan. However, the customers were

happy enough because dolphin sightings filled in the gaps, and the rare sighting of a whale with the skyline of Manhattan in the background was special enough to give the captains hope. Being fishermen, they knew that next year might be better. And it was, more than double, and the year thereafter, more than double that. And so on. We knew whales were coming back to NYC!

In 2015, Gotham Whale was established as a 501(c)(3) notfor-profit eligible for grants and donations, with a mission to study, educate about, and advocate for the marine mammals in the waters around New York City, through citizen science. Citizen science is an old concept that is becoming a new

movement. In 1900, the Audubon Society began its Christmas Bird Count, an exercise asking its volunteers to count the number and species of birds that they see around Christmas every year in their own backyards. Hundreds, and now thousands of eyes take a census of birds from Maine to Mexico. These data develop a picture, a y species. This is important work not possible without the participation of regular citizens.

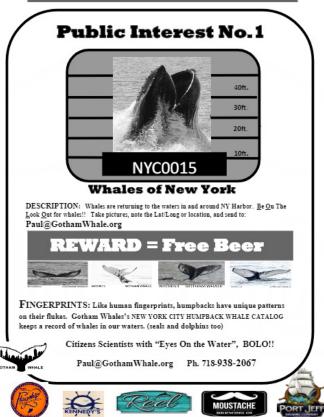
The Christmas Bird

Count model serves Gotham Whale in its mission for marine mammals around NYC. In my early years at the New England Aquarium, I witnessed an expansion of marine mammals into the area around Boston and Cape Cod. After being hunted to almost extinction, the 1970s introduced a number of protections for marine mammals that allowed populations to expand from their refuge in high latitudes to the more southern waters around Boston and Cape Cod. I see that happening today along Long Island and even around NYC. The abundance on Cape Cod is expanding to our waters, to an area of high human activity. The interface of humans and wildlife is fascinating to me and, I think, to others. The juxtaposition of breaching whales and skyscrapers is simply spectacular, while having whales in the shipping lanes of the east coast's busiest port brings environmental challenges on a similar scale.

So, Gotham Whale is immersed in the return of the whale. From being a part time gig to a more than full time job building the organization, my role is growing with the same order of

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magnitude that we see in the number of sightings. Fortunately, everybody likes whales and I am fortunate to have an organization of helpers, all volunteers, doing the various tasks needed to operate. A core staff has been with Gotham Whale from the beginning and work to organize the other volunteers, educate at

Building a network of Sponsoring Bars and Breweries

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table events, and advocate when necessary.

At the center of our work is the data. I call it our "currency." It is the valued collection of datapoints from which we, as well as the other institutions that we share data with, can build pictures to better understand the return of the whales and the

> implications for humans and the whales themselves. We mine this treasure from our partners aboard the American Princess, from other fishermen, from sailors with "eyes on the water" and from regular citizens who, in their travels, see marine mammals and take the time and effort to report the sighting in a standardized manner that can be used for science and conservation.

Sometimes, in today's one-click world, that point is lost. Smart phones and builtin cameras with GIS positioning are a powerful tool for citizen science, which can be lost because of the ease of it all. The data

from a phone image contains ownership, position, date, and time authenticated within the file info on each photo. A marine biologist with multiple doctorates couldn't produce more accurate information. However, what turns a citizen into a Citizen Scientist is a bit more effort than posting that picture to Instagram.

A structured process is needed for that datapoint to be used in peer-reviewed publications or as evidence for decisionmakers. Gotham Whale provides that with our <u>on-line form</u> that ensures that the information is not "just grabbed off the internet" and has been vetted by our experts before being entered in the database. Called a Quality Assurance Program Plan (QAPP), this standard is being adapted for citizen science projects of all stripes, from water testing that is recognized by the EPA, to our own data that have been published in respected journals like Marine Mammal Science and Marine Policy. Without publication in such journals, regulators and legislators cannot consider it the "best available science" for decision-making.

Gotham Whale is bringing that message to the citizens of NYC

and with their participation, we want to build a hopeful picture of marine mammals as they return to the waters around New York City. It was a mission I couldn't deny as the whales, dolphins, and seals increase in my neighborhood every year. They are following me, I'm sure.

Paul Sieswerda is the Executive Director for Gotham Whale

#### **Resources**

Gotham Whale. <a href="https://gothamwhale.org">https://gothamwhale.org</a>.

Brown, D., Sieswerda, P., and Parsons, C. (Aug. 2019). Potential encounters between humpback whales (Megaptera novaeangliae) and vessels in the New York Bight apex, USA. *Marine Policy* 106 (103527). https://doi.org/10.1016/j.marpol.2019.103527.

Brown, D. et al. (Jan. 2018). Humpback whale (Megaptera novaeangliae) sightings in the New York-New Jersey Harbor Estuary. *Marine Mammal Science*. 34(1): 250–257. https://doi.org/10.1111/mms.12450.





# WATCH THE FILM ON GOTHAM WHALE!



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