

FRIENDS OF BOMBAY HOOK

Newsletter



Great Egret
Photo by Karen Dever



30 Years of Conservation
1990 - 2020

Vol. 31, No. 3
September 2021

Our Mission Statement:

The Friends of Bombay Hook is a not-for-profit corporation working in conjunction with Bombay Hook NWR and the U.S. Fish & Wildlife Service (USFWS). It supports and enhances educational and recreational programs at Bombay Hook, provides volunteer services and financial assistance and serves as a link between the Refuge and the public.

The Visitor Center/Blue Heron Gift Shoppe has re-opened with limited hours. Come in and see us!!!

Our readers are encouraged to share comments, provide articles for publication and/or suggestions regarding the Refuge as well as notifying us of address changes.

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Visiting Moosehorn NWR By Julie Memmolo

I was recently in Lubec, ME photographing Atlantic Puffins, and wanted to visit Moosehorn NWR while I was in the area. Moosehorn is one of the northernmost refuges on the Atlantic Flyway. The Flyway is an important migratory route along the East Coast. Many birds feed and nest in this refuge. One of the birds studied at this refuge is the American Woodcock, though I did not spot any during my late July visit.



A few of the birds I saw on this visit were Ruffed Grouse, Loons, Common Yellowthroat, and Eastern Kingbirds. Bear and Moose are found here, but I did not spot any. It is a beautiful refuge with woods, lakes, and meadows. (Photo by Julie Memmolo)

Do you have any refuge stories from your travels? We'd love to hear about them and publish them in the newsletter! Please submit to fobh@comcast.net.

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**Did you know that you could donate to Friends of Bombay Hook simply by shopping through Amazon?? If you shop on Amazon Smile, Friends will receive 0.5% of eligible purchases made.**

**To shop on Amazon Smile, simply go to [smile.amazon.com](http://smile.amazon.com) from the web browser on your computer or mobile device; sign on if you have an existing Amazon account; and choose Friends of Bombay Hook from a list of charitable organizations. It's a great way to shop while donating for a good cause.**

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Hello Friends!!!

The [Blue Heron Gift Shoppe](http://www.blueherongiftshoppe.com) is now open from 9:00 a.m.-3:00 p.m. on Tuesdays and Fridays, and 9:00 a.m.-5:00 p.m. on weekends!

Feels good to be back even though our hours are not full-time yet. Keep watching our posts on [Facebook](https://www.facebook.com/blueherongiftshoppe) and our website at www.friendsofbombayhook.org to get updates on further openings or closings.

Volunteers have been getting things in the store ready for fall with new items and the best of the old. We have great puzzles, candles, books, and so much more! We may only have 70 sq. feet of space, but we pack it in for your shopping pleasure! Please know that all your purchases in the [Blue Heron Gift Shoppe](http://www.blueherongiftshoppe.com) go directly to our mission of supporting the Refuge.

I would like to take this opportunity to mention by naming our wonderful volunteers who stepped up to help FOBH open the store back up and are volunteering during this pandemic. It means so much to have good volunteers that you can count on. We sure couldn't do it without you all!!!

(Photos by Karen Dever)



Jamie Schaeffer

Maribeth and Ray Cullom

Barbara Spangler

Janet Manchester

Julie Memmolo

Vickie Hogue

Cindy Quelle

Arlene Davis

Jay Messenger

Tammy Lewis

Joanne and Bruce Lantz

Mark Dever

Brandi Besecker



VOLUNTEERS NEEDED!



If you're reading this newsletter, we're sure you're a wildlife enthusiast who enjoys spending time in our national wildlife refuges. Whether you're an extrovert who enjoys meeting and sharing your enthusiasm with others or an introvert who enjoys working on fewer social tasks, we could



use your help. No special skills or knowledge are required; we'll provide the training needed for the volunteer activity of your choice. There is no time requirement; whatever you can afford to share is welcome. As Friends of Bombay Hook, our core goal is to provide support and enhance the educational and recreational programs at the Refuge. Our volunteer efforts come in many forms. We currently need volunteers in the following areas:



- Visitor Center and the Blue Heron Gift Shoppe
- Trail maintenance
- Refuge maintenance
- Clerical assistance
- Fun odd jobs



If you're interested in volunteering with Friends of Bombay Hook to support Bombay Hook National Wildlife Refuge, please send an email to our coordinator at fobh@comcast.net. We look forward to hearing from you! *(Photos by BJL)*

Dogbane Beetle (*Chrysochus auratus*)

Here are some fun facts about the Dogbane Beetle, which is commonly found at Bombay Hook NWR:

- It is native to eastern North America.
- This beetle is very common in the Refuge pollinator meadow in early summer.
- Having a spectacular paint job, this beetle has an iridescent metallic green-copper color.
- Colors change as light reflects off the tiny layered shell surface and the pigment layers underneath.
- In addition, the beetle also has two prominent black antennae between its eyes.
- Move slowly around the Dogbane beetle, and you can get a great cell phone picture.
- It does not sting Refuge visitors or carry harmful diseases.
- The beetle eats and lives on the Dogbane plant most of the time.
- This plant contains toxins that can be fatal to many creatures but not this beetle.
- The beetle can store the toxin and secrete it as a defense if threatened.
- The beetles reproduce nearly every day.
- It is easy for a beetle to find a mate because they are all typically found on the same plant species.
- Females will lay 2-3 eggs with a fecal sac that holds the eggs to the leaf underside.
- Once the eggs hatch, the larvae fall to the ground and burrow in the plant's roots.
- The larvae will feed on the Dogbane roots until spring, then pupates and becomes an adult.
- Adult Dogbane beetles will live 40-60 days in our area.
- The beetles do not travel very far and are found living in small groups.
- This species is not listed as threatened or endangered.



Photo by BJL

Bombay Hook NWR Hunt Dates 2021-2022 Season

ARCHERY

Regular Area

September 10

(Area reopens at 12:30 p.m.)

FIREARMS

Regular Area

Muzzleloader: October 11, 13, and 15

Shotgun: November 12, 13, and 17 (**Antlerless:** December 13, 16, and January 21)

NOTE: For the **Regular Area Hunts**, the back part of the Refuge is closed, so please enter at the Main Entrance (Whitehall Neck Road).

Headquarters Area

November 15 and 19 (**Antlerless:** December 15)

NOTE: For the **Headquarters Area Hunts**, the front part of the Refuge is closed, so please enter the Refuge via Route 9 at Dutch Neck Road.

**CLOSURES WILL AFFECT THE AUTO TOUR ROUTE.
FOR YOUR SAFETY AND RESPECT FOR OTHER REFUGE USER GROUPS, PLEASE STAY CLEAR OF THESE CLOSED AREAS.**

PURPLE MARTIN

BOMBAY HOOK NATIONAL WILDLIFE REFUGE 2001-2021

summary	year(s)	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2021	20 yrs totals
first egg laid		5/5	5/20	6/8	5/14	5/28	5/11	5/16	5/10	5/20	5/15	5/14	5/9	5/19	5/18	5/17	5/30	5/28	5/14	5/15	c	5/13
total # of eggs(E)		109	190	164	283	235	390	428	475	451	511	438	518	493	374	358	413	468	459	508	o	459
total # hatchlings(Y)		99	152	135	224	195	352	389	441	391	469	355	448	369	301	234	317	388	353	388	v	318
total # fledglings(F)		95	148	127	176	191	297	366	423	334	340	322	317	337	250	197	299	365	312	354	i	255
last fledge date		8/7	8/8	8/19	8/28	8/4	8/6	8/5	8/4	8/25	8/4	8/10	7/29	8/18	7/27	8/4	8/15	8/20	8/10	8/10	d	8/13
pairs(P)		24	41	36	54	54	77	89	99	101	103	80	105	92	72	67	89	96	98	99		95
																						1571
	years	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2021	20 yrs avg
% eggs that hatched (Y/E)		91	80	82	79	83	90	91	93	87	92	81	86	75	80	65	77	83	77	76	69	82%
% hatchlings fledged (F/Y)		96	97	94	79	98	84	94	96	85	72	91	71	91	83	84	94	94	88	91	80	87%
% Overall Success (F/E)		87	78	77	62	81	76	86	89	74	67	74	61	68	67	55	72	78	68	68	56	71%
fledglings/pair(F/P)		3.96	3.61	3.53	3.26	3.54	3.86	4.11	4.27	3.31	3.30	4.03	3.02	3.66	3.47	2.94	3.36	3.80	3.18	3.58	2.68	3.50

This year

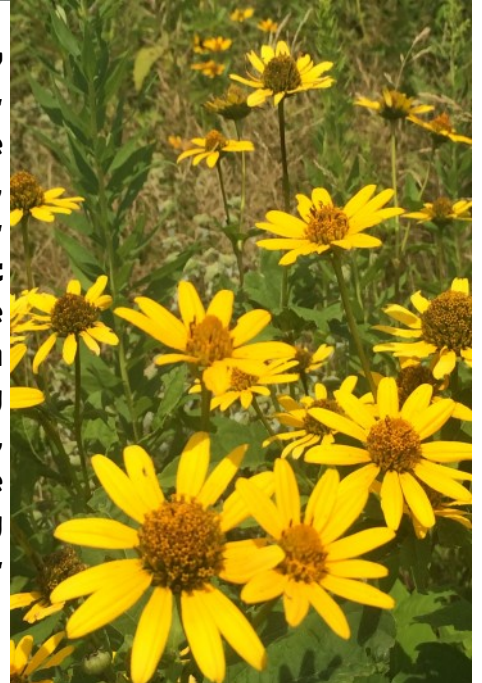
location	office	2021	gemi north	gemi south	2021 year totals
first egg laid	office	T14	30	30	5/13
total # of eggs(E)	12 T GCON	5/13	5/21	5/20	459
total # hatchlings(Y)	12SG	72	163	100	318
total # fledglings(F)		63	86	74	255
last fledge date		44	57	57	8/13
pairs(P)	7/24	8/5	7/26	8/13	95
% eggs that hatched (Y/E)	12	12	30	27	69
% hatchlings fledged (F/Y)	74	79	53	74	80
% Overall Success (F/E)	98	82	66	77	56
fledglings/pair(F/P)	72	65	35	57	2.68
	3.67	3.42	1.90	2.11	
available nests(N)		12	30	30	98
% occupancy(P/N)		100	100	90	97

NG natural gourd; SG super gourds; T14 wood house; TG CON Troyer gourd; Gemini rack

We would like to thank the volunteers for participating in the Purple Martin program. The Friends of Bombay Hook proudly support this program and other programs at Bombay Hook NWR.



Though our educational programs at Bombay Hook NWR remain suspended due to the COVID-19 restrictions, don't forget the Outdoor Classroom. What better way to observe the changing fall season than driving along the Auto Tour, walking a Refuge trail, or looking from an impoundment tower!



The Refuge Visitor Center offers a variety of trail guides and maps to get you started. In addition, there are wildlife brochures for Refuge birds, mammals, amphibians, and reptiles, as well as a tree list.



This information is available to add to you and your family's educational experience at the Refuge. Best of all, they are free. (Photos by BJL and KD)

New Comfort Stations for Bombay Hook NWR



Bombay Hook NWR has replaced one comfort station and added two more at the Refuge. At the Bear Swamp trail parking lot, the old "port-a-john" was replaced with a new permanent comfort station. In addition, two new units were installed at the Pasture Point Pond parking lot. The new facilities are single-user, waterless restrooms that offer year-round accessibility. The Refuge selected a vault restroom design that is quite popular at many Federal refuges and State parks.



The new comfort stations offer greater convenience for the Bombay Hook visitor driving the twelve-mile Auto Tour. The new restrooms offer hand sanitizers, larger inside rooms, and an improved ventilation system along with wheelchair accessibility that includes paved sidewalks to the comfort station and ADA-compliant grab bars inside. The CTX vault restrooms are vandal-resistant, easy to clean and offer a long life to the Refuge.

How does it all work? Instead of a compost system, a large-lined holding tank will be pumped out weekly or as needed. The outside stack pipe has a solar fan system to vent the tank and keep the restroom odor-free. A sanitation contractor will service and maintain the comfort stations for the Refuge.

The new comfort stations will be open shortly once the sidewalk construction is completed and state permits are issued. How can you help maintain them? By not throwing away any trash down the toilets and reporting any comfort station issues to the Refuge Visitor Center, you can "leave the comfort station like you would want to find it." (Photos by KD)

Roseate Spoonbill By Jerry AmEnde

Has everyone been out to see the Roseate Spoonbills? Strangers to our area, four of them showed up on the Refuge just after a storm this summer. The consensus is that maybe the storm blown them off course a little and they decided to stay for the season! Regardless of the reason, we were delighted to see such a bird here at Bombay Hook!



Roseate Spoonbill at Shearness Pool



Three Spoonbills at Shearness Pool

Did you know?

Spoonbills are a southeast bird that was once almost eliminated from the United States!!! In the 1860's Spoonbills were sought after by plume hunters. In the early 20 century they began to recolonize in Texas and Florida and are still considered uncommon and local to their area.

These beautiful birds are usually in small flocks and share habitat with other wading birds.

You can find Roseate Spoonbills nesting in Florida during the winter in colonies. A beautiful sight for sure!

As of this writing, they are still out at Shearness Pool! (Photos by Jerry AmEnde)



REFUGE WORD SEARCH

E	V	S	B	E	O	E	C	I
N	Q	D	I	E	R	S	R	R
A	N	N	S	R	D	O	O	H
R	E	A	O	T	J	O	C	A
C	H	L	N	B	N	G	O	B
I	G	T	G	O	X	E	D	I
S	T	E	R	A	C	U	I	T
U	A	W	P	J	E	L	L	A
E	G	U	F	E	R	B	E	T

BISON BLUE GOOSE CRANE CROCODILE
EAGLE HABITAT REFUGE TREE WETLANDS

HOW CAN YOU SUPPORT FRIENDS???

Donate or Become a Member!

Last year, the **FRIENDS OF BOMBAY HOOK (FOBH)** celebrated its 30th Anniversary! Without memberships, donations, and proceeds from the Blue Heron Gift Shoppe, we surely would not exist today. Throughout the years, we have been able to aid Bombay Hook NWR by supporting environmental education programs, fund transportation for field trips to the Refuge for school children, purchase audio/visual equipment, secure grants, paid for internships, purchased new chairs for the auditorium and for outside programs to name a few. Because of our supporters, we continue with our mission!

TO DONATE OR BECOME A MEMBER:

Please fill out the form below and mail your check to **FRIENDS OF BOMBAY HOOK, 2591 Whitehall Neck Road, Smyrna, DE 19977.**

Or go to www.friendsofbombayhook.org and follow the prompts to either donate or obtain membership. And you can always stop by the Visitor Center during gift shop hours to do it in person! We would love to see you! The Blue Heron Gift Shoppe is operated by volunteers and is only open when the volunteers are present. If you are uncertain of days and hours, please call ahead.

MEMBERSHIP BENEFITS include voting privileges at the FOBH Annual Meeting; 10% discount on merchandise sold at Blue Heron Gift Shoppe; and eligibility to join the Dover Federal Credit Union.

ALL donations are tax deductible.

FRIENDS OF BOMBAY HOOK, INC. is a 501(c)(3) non-profit corporation founded to promote conservation, environmental education, and a better understanding of and appreciation for Bombay Hook NWR.

MEMBERSHIP / DONATION APPLICATION

Submit completed application at the Visitor Center
(payment by cash, check or credit card) or Mail (with check) to:

*Friends of Bombay Hook
2591 Whitehall Neck Road
Smyrna, DE 19977*

Membership Donation

Date: _____

Name

Address

City, State, Zip

E-mail

Newsletter Preference:

Print E-mail (require E-mail address)

Method of Payment

- Cash (payment at Visitor Center only)
 Check (payment by mail or at Visitor Center)
 Credit/ Debit Card (payment at Visitor Center only)

Membership Plan (Check One) **Amount**

- Student (under 18) \$5.00
 Individual \$15.00
 Family \$20.00
 Sponsor** \$25.00
 Sustaining \$50.00
 Corporate* \$100.00
 Lifetime** \$200.00

*Corporate sponsorship includes link to FOBH website; no voting privileges or store discount.

**Sponsor and Lifetime memberships include family.

Donation (Check One) **Amount**

- Miscellaneous \$ _____
 Allee House \$ _____
 Capital Improvement Campaign \$ _____
 Memorial for: \$ _____