

GOONEY GAZETTE II

Friends of Midway Atoll NWR

Summer 2019 Edition



GOONEY GAZETTE II

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By Ann Bell

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Friends of Midway Atoll NWR (FOMA) Battle of Midway National Memorial

Our Mission: "To support Midway Atoll National Wildlife Refuge / Battle of Midway National Memorial in its efforts to preserve, protect, and restore the biological diversity and historic resources of Midway Atoll, while providing opportunity for wildlife-dependent recreation, education, cultural experiences, and scientific research."

FRONT COVER: Laysan Albatrosses are masterful soarers, able to fly great distances and through the fiercest storms while barely even flapping their wings. To a large extent, the faster the wind blows the more maneuverable they are. In fact, when the wind is calm, albatrosses have trouble taking off. They typically need to face into the wind and run along the ground or water's surface, wings spread, to take off; or to launch themselves from a high point. Front and inside covers by Jonathan Plissner.

INSIDE COVER: Short-tailed Albatross (*Phoebastria albatrus*) chick (left) and George (right) on Sand Island, Midway Atoll NWR.

GOONEY GAZETTE II

Summer 2019 Edition

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VISION

Friends of Midway Atoll National Wildlife Refuge plays a pivotal role in the conservation and restoration of Midway's natural and historic resources through financial and volunteer support, dynamic outreach and education, effective advocacy in the support of Refuge programs, assistance in the development of an inspirational visitor program, and productive collaboration with diverse partners.

VALUES

- Focus on highest priority actions
- Be a voice for our members
- Share science-based information
- Operate with integrity
- Be accountable with our actions and resources

CONTACT US

Join us online at
www.FriendsOfMidway.org

Find us on Facebook
"Friends Of Midway Atoll NWR"

Email our President
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Top right: Laysan Albatross parent and chick. Bottom right: Turtle Beach. Jon Plissner, Island Conservation.

FROM THE PRESIDENT

Dear Friends,
It is with great pleasure that we present the Summer 2019 edition of the *Gooney Gazette II* and share with you more stories from Midway Atoll National Wildlife Refuge and Battle of Midway National Memorial. We are halfway through our 20th anniversary year; two decades have passed since our Friends group was formed. In that time, your dedication to ensuring that Midway remains protected (with or without visitation access) and that long-term conservation goals are achieved year in and year out has never wavered. Through our "global" community of individuals who deeply care about history, seabirds, coral reefs, marine mammals, sea turtles, endangered species recovery, and native plant habitats, we have fostered a forum that allows us to come together and celebrate the beauty that Midway represents to all of us. To me, access to Midway in any form is simply a privilege. In this edition, you will learn about the current group of people that in 2019 have physically been able to take part in shaping the future of Midway. To date, in fiscal year 2019, FOMA has utilized over \$36,000 of our funds in support of current refuge needs. We also embarked on a new effort to provide more regular updates from Midway by working with the Refuge to support a year-round Communications Volunteer position out on Midway. If you are able, I would encourage you all to make a donation so that we may continue our work to expand support for the refuge and hopefully make more current actions out on Midway more accessible to all. Maybe \$20 for 20 years! I hope you enjoy this new edition of the *Gooney Gazette II* and thanks to all of you who help make it happen!

We hope you enjoy the stories ahead.

Aloha and mahalo a nui loa,

Wayne Sentman, FOMA President (Midway Atoll Resident 1998–2002)

Cable Company Connections

By Ann Bell, FOMA Board Member

In March 2017, I was walking with my good friend Barbara Mayer on Waimanalo Beach, O’ahu when I was introduced to Michael Stroup. He was throwing a ball to his dog while we talked about the Great Frigatebirds that were soaring high overhead. My enthusiasm was damped a bit when he said that in the past there were many more seabirds in the air. Since he seemed to care about the decline of what had been once so abundant in the past, I wanted to hear more.

Barbara had become acquainted with Mike casually on many sunrise beach walks, and, ironically as it turns out, introduced us through the context of Barbara and my educational work on Midway Atoll National Wildlife Refuge (NWR). He cued in on the word “Midway,” and quietly commented, “Yes, I know where it is, and I spent one of the best summers of my life there.” This was the first of several sunrise conversations we had during the next year, when I was occasionally offered a house-sitting gig at Barbara’s Waimanalo hale (house). I had moved to Tennessee to be with family during a year of cancer treatments. However, one of the most healing experiences that followed were my trips back to Hawai’i where the rising sun over the Pacific highlights the Ko’olau Mountain range. There was also the chance that I could “talk story” with Mr. Stroup. When I returned a year later, Mike shared some items he had dragged out of his files: a *Honolulu Star Bulletin* front page from June 1941 that featured a

Top: Newspaper article from the Honolulu Star Bulletin front page, June 1941, featuring Michael Stroup before flying on a Pan Am Clipper to Midway Atoll.

Bottom: Seventy-eight years later, the memories of Midway are shared with Ann Bell at Waimanalo Beach. Photo by Barbara Mayer.



Michael Stroup, Globetrotter

7 Year Old To Be Only Youngster on Midway



The U.S. Navy used the cable for secure communications with Pearl Harbor, prior to the Battle of Midway.

7-year-old boy leaning on a koa outrigger canoe, a signed citation, and several 8x10 prints of birds, taken by his father who—among other things—was a talented photographer. The newspaper article announced that Mike Stroup would soon be the only child living on Midway, and he and his mother Dorothy would be departing on a Pan American Clipper in a few days. His father, Lewis H. Stroup, was on Midway as superintendent of the Commercial Pacific Cable Company station there.

Thus, Mike was afforded the chance of a lifetime, to live on Midway as the youngest soul on a spectacular atoll, and to reside in one of Cable Company buildings (built circa 1903). In addition to their beauty and prominence, the buildings that housed cable operations and administration (including the living quarters) were designed to withstand severe storms and the corrosive salty environment.



Pan Am Clipper pulls into the lagoon on Sand Island at Midway Atoll.

A wrap-around second story veranda graced all the two-story structures, allowing a peek at the white beach, the azure lagoon, and the surf breaking on the coral rim of the atoll in the distance. On this long sandy beach, Mike recalled being fascinated during full moon nights when, lacking the light pollution of electric streetlights, his shadow was inky black on the white sand (try that in Waikiki; I doubt one can see much of a shadow in the moonlight there). Today, 116 years after they were built, only one of the cable station buildings remains, thanks to a Save America's Treasures Grant (for more information, visit: <https://tinyurl.com/MidwayCableCo>).

The Commercial Pacific Cable Company station on Midway was a small community whose members I have no doubt loved the island very much. Their stories, however, are mostly lost, perhaps overshadowed by the thousands of military and contract workers and their various machines and buildings that landed on Midway during and after the war. Although the *Honolulu Star Bulletin* article stated that Mike's mother would be home-schooling him (she had been a teacher previously), they were sent back

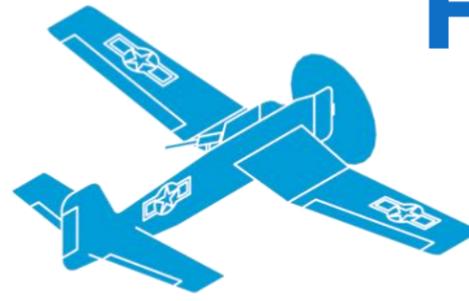
to Honolulu in early fall, due to the mounting tensions with Japan. His father and other staff stayed on to keep the station operating. The Navy, of course, recognized the importance of the cable as the only really secure communication channel, and after the war, Lewis H. Stroup (Michael's father) received a note of thanks as follows: "For invaluable service rendered his country when, as Acting Superintendent, Commercial Cable Company during the Battle of Midway on June 4, 5, and 6, 1942, he so capably and efficiently managed the equipment and personnel...to make it possible for them to handle traffic with promptness and dispatch, thereby contributing greatly to the ultimate success of our forces."

Signed, C.W. Nimitz, Adm. U.S. Navy

Mahalo (thank you) Mike Stroup for sharing your story. I feel this is another reason to keep fighting for our native seabirds, a mutual admiration and connecting force for all of us. ☒

Please feel free to submit **your** story short or long (or simply a photograph that speaks a thousand words) for inclusion in future *Gooney Gazettes*! Email your story, memories, or photos with appropriate credits and info to: FriendsMidway@gmail.com.

The compound included the Superintendent's quarters, office and cable equipment, barracks, and mess hall with a library.

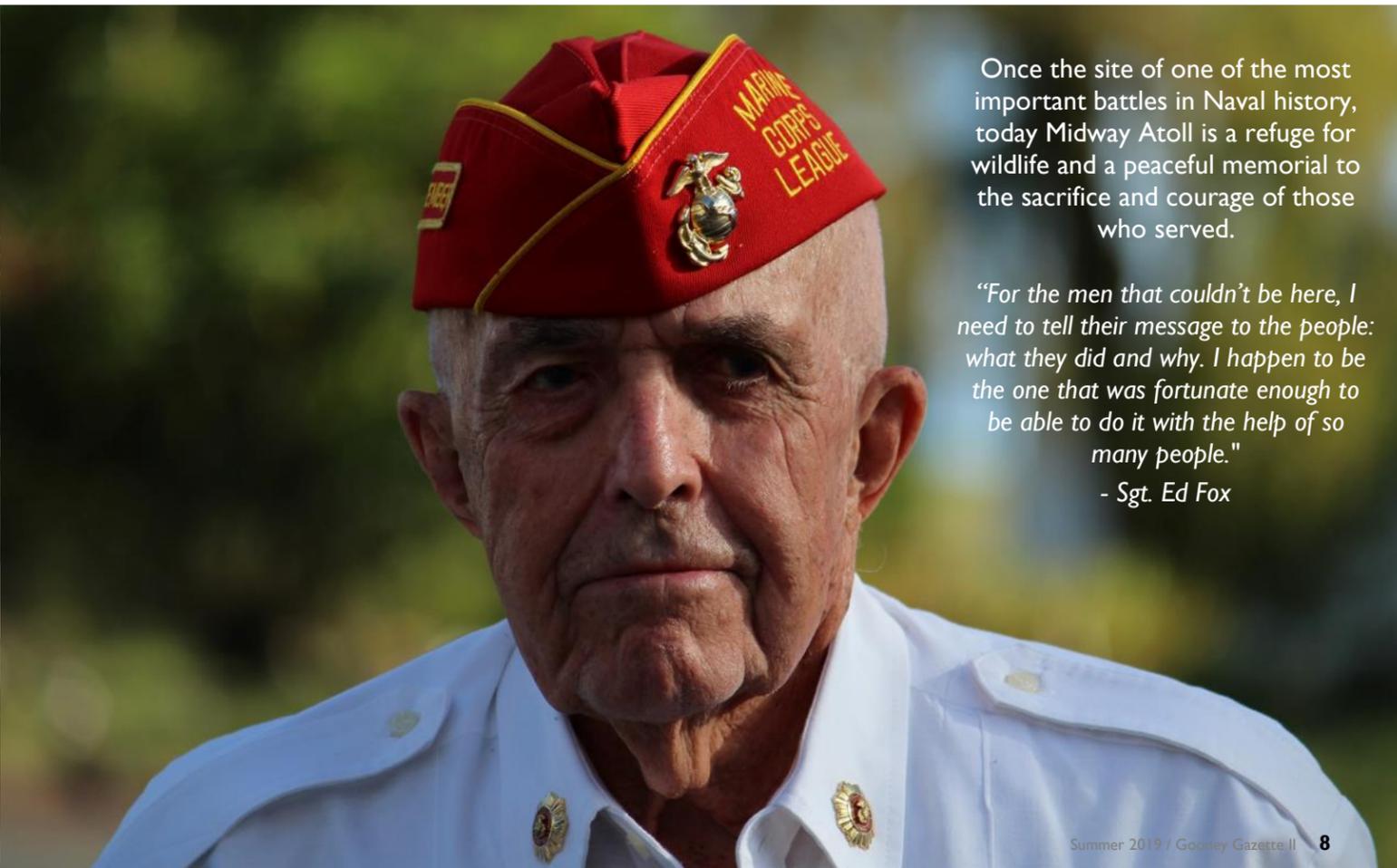
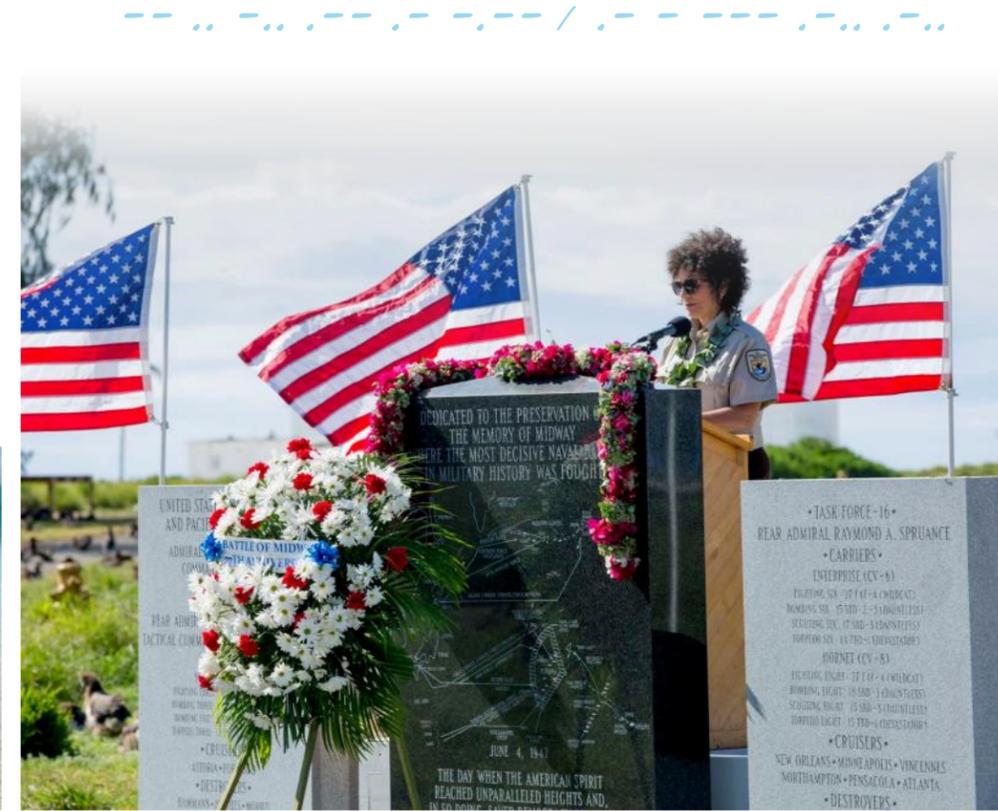


Right: On June 4th, 2019, Battle of Midway veteran Sgt. Ed Fox joined the U.S. Fish and Wildlife Service on Midway Atoll NWR to commemorate the 77th anniversary of the historic battle, the Battle of Midway. Below: Sgt. Ed Fox's daughter, Debra Fox, casts out flowers for those who made the ultimate sacrifice.



Honoring the Past

Commemorating the 77th Anniversary of the Battle of Midway



Once the site of one of the most important battles in Naval history, today Midway Atoll is a refuge for wildlife and a peaceful memorial to the sacrifice and courage of those who served.

"For the men that couldn't be here, I need to tell their message to the people: what they did and why. I happen to be the one that was fortunate enough to be able to do it with the help of so many people."

- Sgt. Ed Fox

Douglas SBD Dauntless of the Battle of Midway Memorial at Chicago's Midway International Airport. Photo by John E. Jauchler/New England Airports.



Midway to Midway

By Helen Dunlap, FOMA Board Member

Over 20 million passengers travel to and through Chicago Midway Airport each year. As floods of people go from gate to gate, they pass by one of the most popular and recognizable attractions—the Battle of Midway Memorial exhibit in Concourse A. But what’s the connection between the Battle of Midway and Chicago Midway Airport?

Chicago Connection

Chicago Midway Airport was first opened as a commercial airport in 1927 under the name Chicago Municipal Airport. Prior to this, the location served as a much smaller airspace for airmail services. On June 23rd, 1949, the City Council of Chicago changed the name of its municipal airport to *Midway*

Airport “in honor of the heroes of the battle of Midway, ... the men who turned the tide of the battle in the Pacific.” Orchard Field had just previously been renamed for Butch O’Hare who single handedly saved the *USS Yorktown*, which subsequently carried the *Dauntlesses* to victory at Midway.

In the early 1940s, from 1942 to 1945, Chicago was a central training ground for allied pilots, aircraft carrier officers, ship’s deck, and flight crews. Aircraft Carrier Qualification training was conducted on Lake Michigan in order to avoid attacks from submarines which frequently patrolled the US coastline. Two former Great Lakes excursion vessels, the *Sea and Bee* and the *Greater Buffalo*, were fitted with flat tops and commissioned by the US Navy as the *USS Wolverine* and the *USS Sable*.

These two vessels, which operated from Chicago's Navy Pier, provided the platforms for the pilots to prove their ability to land and take off from an aircraft carrier, after receiving training at Glenview Naval Air Station. The Lake Michigan training operation was a great success; over seventeen thousand pilots were qualified.

After the Battle of Midway, the fixed wing *Dauntlesses* moved to land bases. Some were transferred to Chicago, where in order to avoid U-Boat assault and to provide a central training place for Allied pilots and aircraft carrier officers and crew. In addition to the training, the Chicago war effort produced rotary plane engines at Ford City, torpedoes at International Harvester, PT boats on the north branch of the Chicago River, and the atomic bomb at the University of Chicago. It took more than three more years and the atomic bomb to end the war.

The Exhibit

SFC Edgar R. Fox, a friend of FOMA, was an active leader in encouraging the City Council of Chicago to invest in this exhibit in 1992—the year that marked the 50th Anniversary of the Battle. The Chicago Marine Heritage Society was asked by the City of Chicago to

form and lead the committee to design, construct, and install this exhibit. One of the most iconic pieces of the exhibit is the Douglas SBD *Dauntless* that hangs overhead in Concourse A. Recovered from Lake Michigan in 1991 (47 years after it had crashed during training exercises), the SBD *Dauntless* Dive-Bomber now hangs from the ceiling as part of the Battle of Midway Memorial exhibit. This is the same type of airplane that was flown by U.S. naval aviators in the Battle of Midway. Good fortune now allows travelers that pass through the Midway Chicago Airport to actually see an original of these planes fully restored and properly displayed. This exhibit additionally features photographs, narratives, and three interactive video kiosks with historical accounts. As a whole, the exhibit provides an educational experience that raises awareness of the contributions that the pilots, engineers, and City of Chicago made to the World War II effort.

So, the next time you pass through Chicago Midway Airport, take moment to visit and appreciate this great exhibit. ☒

To learn more, visit:

<http://www.chicagomarineheritage.org/midway.html>



Detail of the Battle of Midway Memorial at Chicago's Midway International Airport.

Annual Albatross Census



Midway's albatross populations were counted by a resilient and dedicated team of volunteers, pictured on the previous page. In the back row: Joan Vanderwerf, Oliver Prince, Helen MacDonald, Thane Pratt, Shirley Doell, Jenny McKay, Jan Loomis, JD Bergeron, Stephanie Prince, Elizabeth Rave, and Jill McIntire (longtime census counter). In the front row: Greg McCormick, Rowena Carleson, Bob Arrigoni, Bettina Arrigoni, Susan Cockerham, Genny Hoyle, and Jean Lyle. Although the methods of counting remain the same, a new step has been added to the protocol: burrow shoes. While albatross are perhaps the most noticeable nesters on Midway, this atoll is also host to the world's largest population of Bonin Petrels, small, nocturnal seabirds which create extensive burrows underground in which they nest. Walking transects back and forth greatly increases the risks of destroying burrows, so volunteers wear large burrow shoes to safely walk while counting. Developed with the help of seabird biologists Sarah Youngren and Dann Rapp, among many other experts, the burrow shoes are modeled after snowshoes and greatly decrease burrow collapses. Since the shoes are rather large and initially difficult to maneuver in, they were nicknamed "Clown Shoes" after a beer sold in the Midway Ship Store. Each year, Friends of Midway Atoll supports the Annual Albatross Census by covering volunteer expenses, such as food and lodging on Midway.



Biologists Kelly Goodale (left) and Keely Hassett (right) band Sand Island's first Short-tailed Albatross chick, who has presumably fledged. Photo by Jonathan Plissner.

Hatch Year 2019 (HY 2019) marked another bumper crop year for Midway Atoll NWR's albatross populations—the second largest count since census efforts began in 2004! For Laysan Albatross (LAAL for short; left axis in the graph below), 593,664 nests were counted during the winter 2018-2019 Annual Albatross Census. That means that Midway is home to nearly 1.2 million *breeding* Laysan Albatross, and thousands of more

non-breeding albatross. For Black-footed Albatross (BFAL for short; right axis in the graph), 26,108 nests were counted, the 4th highest count over the last 15 years. Moreover, Spit Island (Midway's smallest island) had its highest ever count of Black-footed Albatross. Although breeding albatross populations fluctuate from year to year in relation to environmental conditions (such as El Niño events), Midway's albatross populations are robust and on the rise.

Short-tailed Albatross Fledges from Sand Island

"George" is a male Short-tailed Albatross who returned to Midway Atoll NWR during the 2018 fall breeding season. Hatched and banded as a chick on Torishima, Japan in 2003, he was first sighted on Midway Atoll in November 2006. "George's" partner (nicknamed "Geraldine") has not been positively identified by band number since the two birds first appeared together in November 2016, but it is suspected to be an individual that was banded at Torishima in April 2008 and was first observed on Sand Island in early 2012. For

several years, the subadult was observed on its own in town and elsewhere on the north side of the island.

From 2016 onwards, the two birds spent time together in the male's traditional neighborhood (south side of Sand Island). In 2017, the two birds courted and appeared to start nesting activity but then suddenly appeared on an egg a few meters away. When the egg hatched, USFWS confirmed suspicions that the pair had usurped a neighboring Black-footed Albatross nest and then had a young Black-footed Albatross chick, which they successfully cared for until it fledged in mid-June 2018. Geraldine's gender was truly revealed when the pair laid an egg in late 2018. After a winter and spring season of successfully feeding and rearing the chick, biologists banded the chick on May 6th, 2019 and it has now (presumably) fledged and is the first Short-tailed Albatross to do so from Midway Atoll NWR's Sand Island. ☑





Protect Birds: Be the Solution to Plastic Pollution
World Migratory Bird Day

International Migratory Bird Day (IMBD) was created in 1993 by visionaries at the Smithsonian Migratory Bird Center and the Cornell Laboratory of Ornithology. From 1995 to 2006, the program was under the direction of the National Fish and Wildlife Foundation and U.S. Fish and Wildlife Service. Because of its consistent growth, these organizations sought a new home for the program. In 2007, IMBD found its “forever home” at Environment for the Americas (EFTA), a non-profit organization that connects people to bird conservation through education and research.

Plastic and the Harm It Does to the Environment

Millions of tons of plastic are produced each year, much of which has a single-use of less than a minute—but can take up to 1,000 years to decompose. Discarded pieces find their way into ecosystems through the forces of nature and human negligence causing serious threats to migratory species around the world. Broken down into small particles by water, sunlight, and wind, plastic can lead to lethal cases of ingestion. Larger pieces can entangle animals and are often mistaken for food. Seabird chicks are frequently found dead with stomachs full of plastic.

Ingestion

Floating on the surface of the water, covered in algae, single-use plastics such as bags, drinking straws, and bottles can easily be mistaken for prey, both by shape

and by smell. Sharp plastic particles cause immediate death by piercing internal organs. Toxic chemicals coating plastics are an additional threat.

Entanglement

Abandoned fishing gear (much of it plastic) is one of the most common causes leading to a phenomenon called “ghost fishing.” Birds caught are either injured and pick up infections or end up drowning. Often, trapped birds are limited in their movements and easily become prey to other animals.

What Can You Do to Fight Plastic Pollution?

Refuse, reduce, reuse, and recycle: Limit your use of plastic materials and replace them with eco-friendly alternatives; use and dispose of plastics sustainably.
Clean Up: Join clean-up activities in your area, whether at beaches or along rivers.
Spread the word: Support local and global action against excessive, unnecessary use and detrimental disposal of plastic.

How can you participate?

Join the global campaign and help raise awareness by organizing educational programs, lectures, beach- and riverside clean-ups, visits to bird-watching sites, competitions, art exhibitions, and other public events. ☑

Find out more or register an event at:

www.worldmigratorybirdday.org

For questions, email:

contact@worldmigratorybirdday.org

WORLD MIGRATORY BIRD DAY 2019



Bird Identification (bottom, left):
 Magellanic Penguin, Black Skimmer, Lesser Scaup, Chilean Flamingo, Common Tern, Northern Fulmar, Magnificent Frigatebird,
 Osprey, Belted Kingfisher, Tricolored Heron, Killdeer, Prothonotary Warbler

Design and Illustrations:
 Ana do Prado





EL BOBO

Seemingly silly with brightly colored feet, boobies are graceful seabirds with exceptional diving skills.

Three booby species nest in the Hawaiian archipelago. Red-footed, Brown, and Masked boobies share many characteristics—but they are distinguishable in many ways as well. All three Booby species go by the same Hawaiian name, ‘Ā. The colloquial name “booby” is believed to originate from the Spanish word, *Bobo*.

Of the boobies that nest in Hawai‘i, the Red-footed is the smallest; the Masked is the largest. Their plumage varies by Booby species, age, and season. When boobies fly to their nesting site, they engage in postural displays, accompanied by an array of loud, gender-specific calls. Red-footed Boobies build a platform nest of twigs and sticks on which they lay a single egg. Both parents share in the incubation duties. Boobies have no brood patch but they can use their webbed feet and gular flutter to control their body temperature. Brown and Masked boobies nest on the ground. They typically lay two eggs, but the second chick rarely survives.

Boobies range widely in search of fish and squid which they capture by plunge diving. However, capturing prey is only half the challenge. Boobies will often face a gauntlet of Great Frigatebirds that chase the boobies that are returning from their feeding trips, forcing them to throw up their hard-won meal. In the pursuit of words to describe just about any behavior in nature, scientists refer to this as kleptoparasitism.

My first hands-on opportunity to work with boobies came nearly 50 years ago while working at Sea Life Park, an oceanarium in Hawai‘i. In an attempt to establish a small colony of Red-footed Boobies within the Park, I collected a dozen half-grown birds from a large, nearby colony. Park staff and I placed them onto artificial nest platforms, where they were fed small fish, several times each day until they fledged. We were very pleased to see some of these birds return to the Park 3-4 years later and, soon after, to nest at the Sea Life Park colony.

As the “artificial” colony began to grow, we discovered that here was an opportunity to conduct research that would have been very difficult, if not impossible, to replicate in “wild” colonies. For example, Dr. Causey Whittow and I began a project to investigate how these birds were able to regulate their internal body temperature. We fed the “test” birds a temperature-sensitive, radio-transmitting pill that had been placed inside a small fish and fed to the birds. We then monitored the bird’s temperature while simultaneously documenting the bird’s posture and other behaviors. ☒



‘Ā EVERYWHERE

Photos from top left, clockwise.

Red-footed Booby with chick

Masked Booby with chick | Although the Masked Booby regularly lays two eggs, it never raises two young.

Red-footed Booby in flight

Red-footed Booby pair | This species is colonial and highly social; courtship rituals and displays are very important.

Dark morph of Red-footed Booby | This species comes in a confusing array of color morphs, ranging from individuals that are all white except for blackish on the wing, to individuals that are entirely dark brown.

Photos (on this and the previous pages) and text by Rob Shallenberger, FOMA Board Member

Midway Connection

Meet Barbara Carr Whitman—Bringing Midway to You

The Board of Directors for the Friends of Midway Atoll and the U.S. Fish and Wildlife Service have selected Barbara Carr Whitman for the USFWS and FOMA sponsored volunteer communication position on Midway Atoll NWR. She will help the Refuge staff with communication and monthly reporting requirements in addition to supporting outreach efforts through FOMA's social media venues to share weekly happenings and project updates with the rest of the world.

Barbara has studied and taught for over 40 years about the marine environments in New England, Mexico, Nevis (West Indies), and Hawai'i. Her overall goal is to accurately inform people of all ages including build curiosity and engagement. Barbara was an English major before she was a Biology major so communication through writing is at the heart of her work. She has written a treatise on salt marshes, a children's story, and a newspaper column called *B on the Sea*.

As a marine biologist, informal educator, and entrepreneur (three successful marine education businesses) by trade, she also picked up all kinds of unrelated skills, such drawing dinosaur teeth and skulls for the world's leading expert on *Stegosaurus*, and honed her skills as a biological illustrator.

For many years she was an emergency medical technician and remains in community emergency response; she is also a licensed USCG boat captain (both good skills to have on Midway).



Islands are no stranger to her. She has studied at Shoals Marine Laboratory on Appledore Island in Maine and on Tavern Island in Connecticut. Although many times larger than Sand Island, she spent 13 years on the 26 square-mile Caribbean island of Nevis, and for 7 years O'ahu was home. She landed on Midway Atoll, May 30th, 2019 and supported operations to commemorate the 77th Anniversary of the Battle of Midway. If you see her on Facebook, Instagram, or Twitter, ask her questions about what is happening on Midway! She is there to connect Midway to you! ✉

Stay connected with us!

 facebook.com/FriendsofMidwayNWR/

 [@FriendsofMidwayNWR](https://www.instagram.com/@FriendsofMidwayNWR)

 www.friendsofmidway.org

Meet the New Crew

USFWS and Kupu AmeriCorps



Left to right: **Virginie Ternisien:** Kupu, **Elizabeth Klein:** Volunteer, **Brett Higgins:** Volunteer, **Rachel Geiger:** Volunteer, **Joseph Schultz:** Volunteer, **Paige (Puakea) Mo'okini-Oliveira:** Kupu. Photo credit: USFWS.

Lend a Hand

Volunteer Opportunities
with FOMA and USFWS



Two Brown Booby subspecies—*Sula leucogaster plotus* left and *S. l. brewsteri* right; Photo by Jonathan Plissner/Island Conservation

Your membership supports crucial ecological conservation and historic preservation of Midway Atoll NWR's unique resources.

Join or renew today!



Wedge-tailed Shearwater (*Ardenna pacifica*); photo by Jonathan Plissner/Island Conservation

BECOME A FOMA VOLUNTEER

FOMA is a volunteer-run non-profit organization. Board Members donate their time and skills to support the Refuge because of their passion for Midway Atoll NWR. The FOMA "office" is located in the hearts and minds of the Board, which means that all donations and grant funds go directly to on-atoll projects or outreach activities about the Refuge. We are always looking for volunteers to help with a variety of tasks.

General FOMA Volunteer Needs

Volunteer activities will be directed by and in concert with board members. Even a few hours of your time can make a difference. Some possible areas for volunteer assistance and specific activities include:

- Research and summarize military history on Midway Atoll
- Create new materials about FOMA for display at the Refuge
- Design and create education or outreach materials to inform students and the public about Refuge resources and challenges
- Research information and find images for our newsletter, website, blog, and social media
- Help to share FOMA's mission and work and build a broader constituent base through assisting with social media platforms, such as Instagram, Twitter, and other communication channels

If you are interested in helping FOMA with any of these tasks, please inquire with us at FriendsMidway@gmail.com. We look forward to hearing from you!

BECOME A USFWS VOLUNTEER OR ADVOCATE

• Check out all the opportunities at: [http://www.fws.gov/refuge/Midway Atoll/](http://www.fws.gov/refuge/Midway%20Atoll/). Spend up to 6 months on the atoll as a Refuge Biology Volunteer by helping with seabird monitoring and habitat restoration efforts. Not ready for a 6-month commitment? Apply as an Annual Nesting Albatross counter and spend 3 weeks over the winter time (it's still warm!) to help to count all the atoll's albatross.

• Not able to volunteer on Midway Atoll NWR? The saying goes that the "pen is mightier than the sword," so consider advocating for Midway! Talk to your state representatives and senators about supporting the National Wildlife Refuge System. With an operations and maintenance backlog of +\$3.5 billion and counting, the Refuge System is vastly underfunded. In fact, more than one third of Refuges across the nation have no onsite staff due to budget cuts. To learn more, visit www.RefugeAssociation.org.

• Find a Refuge near you! The National Wildlife Refuge System is responsible for managing more than 850 million acres of lands and waters, including 5 marine national monuments. There is at least one National Wildlife Refuge in each state and U.S. territory. About 500 Refuges are open to the public and nearly all offer free entry. Visit www.fws.gov/refuges/refugelocatormaps/ to find a Refuge near you. Discover your place to connect with wildlife or join a Friends group to advocate for your Refuge. ☒

Friends of Midway Atoll NWR MEMBERSHIP APPLICATION

Please fill out this application and mail (with check) to:
Friends of Midway Atoll NWR
17 Katrina Lane
San Anselmo, CA 94960

Or visit our website at <http://www.friendsofmidway.org/membership/> and follow the instructions to purchase or renew your membership.

Name _____
Address _____
City _____
State/Province _____
Zip _____
Country _____
Email _____
Phone _____

Membership Level:

- WWII Veteran.....**Honorary**
- Veteran.....\$20.00
- Student.....\$25.00
- Individual.....\$35.00
- Family.....\$50.00
- Contributor.....\$100.00
- Supporter.....\$250.00 or more
- Life.....\$1,500.00
- Donation.....\$_____

- New Membership
- Membership Renewal
- Donation



All contributions are tax deductible.
Please make checks payable to:
"FOMA" or "Friends of Midway Atoll NWR"

Midway Atoll National Wildlife Refuge and the Battle of Midway National Memorial represents one of oldest atoll formations in the world that provides nesting habitat for millions of seabirds and is a touchstone for one of the most significant naval battles in our human history.



Volunteer Barbara Whitman teaches 96-year-old Battle of Midway veteran Sergeant Ed Fox how to snorkel for the first time at Cargo Pier.