



Habi-Chat

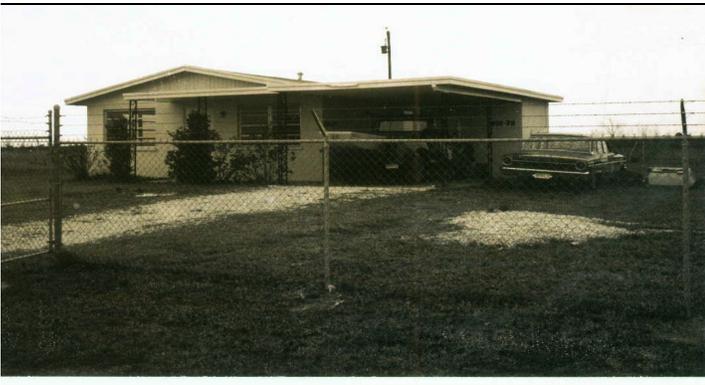
Newsletter of the Merritt Island Wildlife Association

Volume 9, Number 3

Fall 2003

Expansion at the Outpost

Construction of permanent restrooms at the Sendler Education Outpost began in early September. The refuge and MIWA have applied for and received grants to fund this project, which will meet Brevard County School's requirement of permanent restroom sites at educational field trip facilities. MIWA Board Members are currently working with Refuge Ranger Nancy Corona to develop an educational curriculum to be implemented by refuge volunteers. Conservation and marine related activities are already taking place with area school children. We hope to increase the number of visiting students with more funding and programs. If you are interested in volunteering in this or any other activity, please contact Nancy Corona at 321-861-0668 or Nancy_Corona@fws.gov.



the first field refuge headquarters. Photo courtesy of FWS.

Visitor Center and Bookstore Get Face-Lift

Walk into the Visitor Information Center and Bookstore this month, and you'll notice a few changes since July. That's right - construction has begun! The first phase occurred when administrative and biology staff moved out of the Visitor Center and into their shiny new offices at the maintenance yard last month. MIWA and public use stayed, joined by the law enforcement staff. Reorganization of staff put Sandee Larsen in the best office in town, Ron Hight's previous office, and pulled Dorn Whitmore out of the attic. Law Enforcement occupies the back of the building, and MIWA will obtain additional counter and desk space. Most noticeably, however, is the new bookstore, located where Sandy Edmondson and Cynthia Branham previously sat. The walls were painted, doors moved, windows removed, carpet installed, slats hung and merchandise moved in. The old bookstore has been converted into an office for permitting and meeting space for refuge employees. Not quite complete, the transformation is still amazing to gaze upon. The next phase, renovation of the Visitor Center, won't begin until next spring. The plan calls for walls to be knocked out to expand the building, relocation of the visitor desk and register, creation of a children's area and installation of new exhibits and displays. If you haven't caught sight of our new digs, stop by and be impressed.



Sandy Edmondson, Refuge Ranger

Lordy Lordy Look Who's Forty...

Come celebrate the 40th Anniversary of MINWR during National Wildlife Refuge Week. The celebration will take place October 4, 2003 from 9am to 3pm at the Visitor Information Center. Festivities include live animal demonstrations by the Audubon Birds of Prey Center and the Brevard Zoo, Florida snake and live reptile presentations, songbird mist netting and banding, music by the Shadetree Pickers, guided bird walks and wildlife tours, and children's activities. Don't forget to visit some of our hiking trails and newly renovated bookstore in the VIC. For information about the festivities please contact Ranger Nancy Corona at 321-861-0668 or Nancy_Corona@fws.gov.



Message from the President

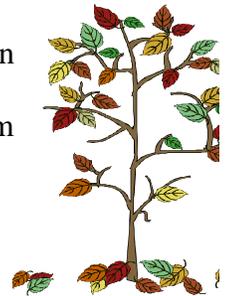


George English, my wife Betty and I recently spent several days vacationing in New Mexico. The highlights of the trip were our visits to several national wildlife refuges. We visited Las Vegas (NM) NWR, Bosque del Apache NWR, and Bitter lake NWR. All three of these refuges play an important role for migratory birds. Thousands of whoopers, sandhill cranes, geese, ducks, and migratory songbirds of the Central and Pacific Flyways pass through these refuges or reside there during the winter. One interesting aspect of these refuges which differs from our own Merritt Island NWR, is that they all cultivate large fields of various crops. Local farmers plant, then harvest a portion of the crops, and leaving a portion as feed for the birds. We talked to some people at each refuge about their Friends' group situation at the refuges, and learned that they are all at different stages of maturity. Las Vegas NWR, for example, is just getting started with a Friends group. They have a new Ranger who is working with a few local people to start a Friends group. They have a new refuge headquarters building with some space to have a small sales store, which they would like to have. The Ranger was very interested in the kinds of things in which our Friends group is involved, so we had a very interesting discussion. Bosque del Apache NWR has a very mature and active Friends group. They have a large sales store which has a lot of local artists' pottery, jewelry, and other art work. They have a very large hummingbird population, and we got to see several varieties. Bitter Lake NWR was probably our favorite refuge. Steve Alvarez, Ranger there (formerly at Ding Darling NWR), whom I had met at the Pelican Island Centennial Celebration in March, hosted us. We got a "cook's tour" of the refuge and thoroughly enjoyed it. Bitter Lake NWR has been approved for a two million dollar plus visitor center with construction to begin in 2004. They have an active Friends group, but presently no sales store, however there will be one in the new center. The national "Volunteer of the Year" for 2002 was Jim Montgomery of Bitter lake NWR, who volunteered for more than 2,000 hours in 2002!

If you travel out that way, I suggest you visit these refuges. Also, wherever you travel, look for and visit area national wildlife refuges. I think you will be glad you did! Maps showing the locations of the more than 540 refuges can be found at the refuge visitor center. Just another reason to stop by and visit us! Closer to home, there are several interesting activities scheduled at MINWR in the coming weeks. You'll find information about them elsewhere in this issue of the *Habi-Chat*.



Warren L. Camp,
MIWA President



Visitor Information Center Hours

Monday through Friday
8:00 a.m. – 4:30 p.m.

Saturday and Sunday*
9:00 a.m. – 5:00 p.m.

*VIC is closed Sundays from
April-October

The Refuge is open daily
from sunrise-sunset,
except during Shuttle launch
operations.



The purpose of the Merritt Island Wildlife Association is to promote conservation, awareness, and appreciation of the Merritt Island National Wildlife Refuge and to provide assistance to Refuge programs.

President
Vice President
Treasurer
Secretary
President Emeritus

Warren Camp
Dan LeBlanc
Jim Pedersen
Darleen Hunt
George English

Refuge Manager

Ron Hight

USFWS Liaison

Dorn Whitmore

NASA Liaison Mike Sumner

The Merritt Island Wildlife Association (MIWA) is a nonprofit, cooperating association for the Merritt Island National Wildlife Refuge. *Habi-Chat* is published quarterly. For MIWA information, call 321-861-2377.

Newsletter Editor

Beth Homa

Technical Consultant

Sandee Larsen



The Brevard Nature Alliance Presents
**SPACE COAST
 BIRDING & WILDLIFE
 FESTIVAL**
Nov. 12-16, 2003

Keynote Speakers

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 Published Author

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 Interpretive Birding

Kenn Kaufman
 Renowned Birding & Butterfly Expert
 Published Author

David Gluckman
 Attorney practicing environmental law
 Author, *See Kayaking in Florida*

Pete Dunne
 Director, Cape May Observatory
 Author, *Pete Dunne on Birding*

PELAGIC BIRDING TRIP - MORE THAN 30 FIELD TRIPS
SEMINARS & WORKSHOPS - BOAT TRIPS - KAYAK TRIPS
ART COMPETITION - NATURE BASED TRADE SHOW
VENDORS WELCOME
NEW THIS YEAR - KAYAKING SEMINARS & TRADE SHOW

This exciting five-day event offers an opportunity to explore the globally significant natural areas of Florida's Space Coast, home of the largest collection of endangered wildlife and plants in the continental United States.

FESTIVAL HEADQUARTERS:

Brevard Community College - Titusville Campus (North US1 in Titusville, Florida)

For more information contact:

Neta Harris - 321-268-5224
 Laurilee Thompson - 321-268-5000
www.nbbd.com/fly

Melbourne International Airport
 Host Airport for the
 2003 Festival

Best Western Space Shuttle Inn
 Host Hotel for the
 2003 Festival
 1-800-523-7654

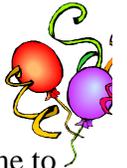
SPONSORS:

AVIS "Official Rent A Car" DELTA "Festival Official Airline"
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 Florida Today - Florida Power & Light Company - Kennedy Space Center Visitor Complex
 Melbourne International Airport - National Audubon Society - Pentax Corporation - Pepsi/Aquifina
 Reliant Energy - Space Coast Office of Tourism - US Foods, Inc. - Waste Management, Inc.





Happy Fortieth MINWR! Reflections of a Refuge Volunteer



By Karl Eichhorn Refuge Volunteer

Sandee Larsen has asked me, as one who has been around since the beginning, to write a short article giving my perspective on the Refuge and how it has evolved over the past four decades. I came to Florida in 1959 as an engineer on the Air Force ballistic missile program at the Cape. As work began to build what was to become the Kennedy Space Center (it was known as the Merritt Island Launch Area in those days), I often drove through the area that was to become the Refuge on my way to visit my parents in New Smyrna Beach. I followed the progress of huge pile drivers working 24 hours a day to set the steel pilings for what was to become the V.A.B. (Vehicle Assembly Building).

When, following a cooperative agreement with NASA, the Refuge was formally established in 1963, I was Associate Test Supervisor on the Air Force Minuteman program at the Cape. In those days I was much too busy to keep up with the developments at the Refuge, it was on my back-burner, so to speak. But when I was elected as president of Indian River Audubon Society, in 1967 that began to change. We often scheduled field trips to the Refuge and my wife Betty and I became close friends of Allan and Helen Cruickshank. Through their National Audubon connections, they knew many high-level people in the Fish and Wildlife Service and, locally, Allan knew several of the top people at NASA, including Dr. Debus, the first Center Director. From the beginning Allan began to “push” all these folks with the idea of establishing a wildlife refuge on those areas of Merritt Island that NASA had acquired primarily as a buffer zone surrounding the planned industrial and launch areas for the Apollo program.

Curtis Wilson became the first Manager of the newly established refuge. Curt was a quiet, but serious fellow who saw his job primarily as a protector of the lands and wildlife for which he was responsible. He and Dr. Debus had wanted to exclude waterfowl hunting from the Refuge, but local interests and politics prevailed and hunting in certain areas under strict regulation and control was soon allowed. Early on birding, fishing and hunting were the main visitor activities on the Refuge—there were no other facilities. Initially, Refuge headquarters was in rented office space in Titusville but soon was moved to an old existing concrete building on SR 405 which was very crowded, even with the small staff at the time.

Soon after the Refuge was established, Russ Mason, who was then Executive Director of Florida Audubon Society, made arrangements to start a Christmas Bird Count at the Refuge. I served as Compiler of the count for several years. At that time we were very fortunate to have Capt. Ken Bennett as a member of our local Audubon chapter. Ken was an enthusiastic birder and he was also in charge of NASA’s security force. He really “greased the kids” for those bird counts. Every security guard at NASA knew when the birders were coming and our temporary passes allowed our teams to move freely about almost everywhere on the Space Center. During this same period Audubon members also made a survey of alligators on the Refuge by taking canoes into the various canals and pondments at night and using headlights to spot the gators. Looking back, those were the best times on the Refuge.

When Curt Wilson left the Refuge in 1968, Hal O’Connor became the second Refuge Manager, serving from 1969 to 1973. He was followed by Bob Yoder, who became Refuge Manager in 1974, and who quickly became one of my favorite Refuge folks. I fondly recall the many visits we had in his office, discussing all sorts of subjects involving the Refuge. Bob was a westerner and he was not familiar with many features of this area, especially our birds and other animal species. His real passion soon became sea turtles. I think he truly loved them and I’m sure he could hardly wait from one nesting season to the next. He would work at the Refuge all day and then spend half the night on the beach watching turtles come in to lay their eggs.

In 1978 Dorn Whitmore joined the Refuge staff as a Ranger and I count him as my close friend over these many years. To me, Dorn truly represents the Refuge in so many ways, especially in the situation I am about to describe.



Refuge Ranger Dorn Whitmore, in his early days, assisting with a gator call. Photo courtesy of USFWS.

(Continued on page 5)

Happy Fortieth MINWR! continued from page 4)

Allan Cruickshank died quite unexpectedly in the fall of 1974, just a year after he retired from the National Audubon Society. During the years that followed some of us decided to promote some sort of memorial to Allan on the Refuge that he helped to create. Finally, Nat Reed, who had become Assistant Secretary of Interior for Fish, Wildlife and Parks, agreed that the planned new Refuge Visitor Center would be dedicated to Allan.

We were all delighted with this plan when a terrible tragedy occurred on the Refuge in the summer of 1981. While attempting to control a wildfire, two Refuge employees were killed. The Fish and Wildlife Service subsequently decided to dedicate the new Visitor Center to the memory of these two men.

While we understood why these plans were changed, Helen Cruickshank and many others of us were disappointed. Dorn now had the assignment to come up with another plan to honor Allan on the Refuge. I worked closely with him on this and the plan ultimately agreed upon was to dedicate a five-mile walking trail off of Black Point Drive to Allan's memory. I am proud that Dorn asked me to write the dedication which today appears on the sign at the beginning of the Cruickshank Trail. The trail along with the observation tower and a photo blind were dedicated at a formal ceremony in October 1984. The new Visitor Center was also dedicated that autumn.

Bob Yoder served as Refuge Manager until 1977, when Steve Vehrs took over the position. Steve served longer than anyone else in that capacity. When Steve was transferred in 1990, Ron Hight, who had been Manager at Ding Darling Refuge, arrived to take over the helm at Merritt Island. He has steered the refuge through periods of heightened security, enforced closures and greatly increased visitation, especially by visitors from other countries. He has seen a Visitor Center, once believed to be more than adequate, nearly overflow with visitors during the prime winter season. This situation finally resulted in the move of most of the staff from the VIC to a trailer facility in the maintenance area this past July.

We can only wonder what other changes are in store for Merritt Island National Wildlife Refuge during the next forty years! I will never know, but I would like to offer a list of the major events which I think have most greatly shaped this Refuge over the past forty years (listed in no particular order).

- Construction of the new Visitor Information Center
- Establishment of Canaveral National Seashore in 1975. The Seashore absorbed some land which had formerly been part of the Refuge.
- Demise of the Dusky Seaside Sparrow not long after the St. Johns NWR was established in 1971 to preserve and protect this endangered species.
- Construction of recreational facilities for visitors, including Black Point Wildlife Drive, five walking trails and the Manatee Observation Deck.
- Organization of the Volunteer program to help reduce the work load of staff.
- Organization of the Merritt Island Wildlife Association, which has done so much to help purchase equipment and fund programs for which the Fish and Wildlife Service has not had adequate funding.
- Support of the annual Christmas Bird Count on the Refuge to document the numbers and species of birds found on the Refuge during winter months.
- Coordination of ongoing research programs to study endangered species on the Refuge, such as bald eagles, scrub jays and indigo snakes.

I can only hope the next forty years will be as productive as the past forty and that Merritt Island NWR will continue to support all the creatures we enjoy so much today, while providing a unique and beautiful area for visitors from all over to enjoy.

Carl Eichhorn, Refuge Volunteer



Helen Cruickshank cuts the ribbon at the dedication ceremony for the Cruickshank Trail. Photo Courtesy of USFWS.





MIWA Minute

It was a quiet summer season here at the bookstore, but this changed in late summer to a much busier pace as Bookstore renovations began. The new space is a bit larger, allowing sales to increase and new items to be retailed. The Bookstore Committee is busy planning for new shelves and re-carpeting the sales and office areas. We are looking for quality used displays to purchase (or that can be donated) and donated funds for the expansion. Please contact me if you can help out in any way. The best part of the move is our new MIWA office, giving us plenty of space for desks and chairs for meeting with vendors or assisting members! I can't tell you how happy I am to get out of the closet (please don't quote me, ha, ha)!



I am proud to announce the following volunteers have donated 100 hours of service this calendar year:

Steve Campbell	Karl Eichhorn	Dottie Fringer	Mel Fringer	Ed Larsen
Vindy Lunsford	Liz Kanjorski	Walt Kanjorski	Joanne Napieralski	Betty Salter
Larry Salter	George Schoen	Ray Scory	Sandy Walters	Chris Wise

Thank you for supporting the Refuge and donating your time and skills. MIWA has awarded each of the above volunteers a complementary one-year membership in appreciation of their hard work and dedication.

We welcome our newest Life Members, **Darleen & Jerry Hunt** and **RADM Bob Merrilies**, all of Merritt Island. As Life Members, they will receive benefits, including discounts on field trips, educational programs, and purchases at the MIWA Gift Shop. We encourage all members to become actively involved in our programs and we ask you all to promote membership to your friends and families.

A big **Thank You** to **United Space Alliance** for their annual donation of \$1,000. USA has been a loyal partner of MIWA through the years and has always supported our conservation and educational programs. Without their support many programs at the Refuge would not exist. Thanks for your generous gift!

MIWA would also like to thank the Wal-Mart Foundation for their generous donation of \$500. Many grant opportunities are available to local community nonprofit associations through area Wal-Mart stores and we were lucky to be chosen by the Merritt Island store. We are looking forward to work with Wal-Mart's Community Coordinator, Tina Weinsheimer, for future grant opportunities. **Thank you Wal-Mart!**

For information on volunteering at the Refuge, contact Nancy Corona at 321-861-0667. Feel free to call MIWA's direct line, 321-861-2377 if you need membership or retail information, or would like to contribute to our expansion and or donate a bookshelf.

'll see you at the Refuge!

Sandee Larsen, Bookstore Manager

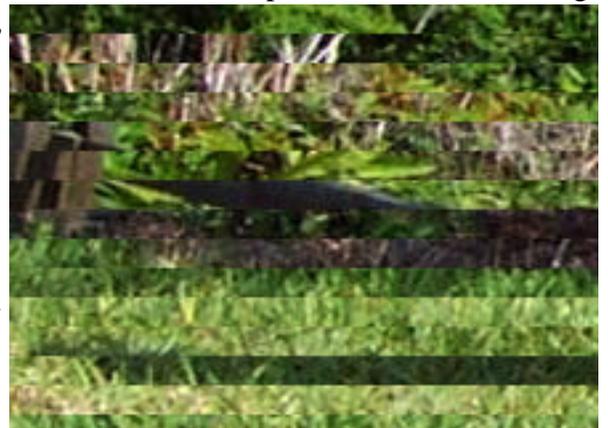


Gardening for Wildlife

If you've visited the Refuge Visitor Center boardwalk lately, you can't help but have noticed the disappointing state of the butterfly garden area. Now, thanks to volunteers **John Boucher, Tracy Saint Benoit** and **Brandon Munsell**, the garden is undergoing renovations. They have taken on the major project weeding, mulching and replanting the beds. Funds donated by MIWA are being used to purchase native nectar and host plant species to benefit the many butterflies that frequent the garden. These beneficial plants include: Climbing Hydrangea, Seaside Goldenrod, Coral Honeysuckle, Pawpaw, Golden Aster, Passionflower, Cassia, Hercules's Club, Wild Coffee, Necklace Pod and Dutchman's Pipe. Soon the garden will be overflowing with star-filled blooms irresistible to butterflies and hummingbirds. The garden is a work-in-progress and donations are being accepted as the flowers continue to grow and bloom.

Thank you John, Tracy and Brandon for taking on such a glorious project. Also, thank you to helper **Celine Saint Benoit** and who piled mulch, weeded and watered. Not only will visitors enjoy the sight of our native flowers, but birds and butterflies will also benefit from your hard work!

If you would like to donate time, native plants or much needed funds for this ongoing project, contact Sandee Larsen at 1-861-2377 or Nancy Corona at 321-861-0668.



Volunteers Tracy Saint Benoit and John Boucher hard at work on the butterfly garden.



Merritt Island Garden Club



Those of you familiar with the recently updated entryway at the Merritt Island Library have probably noticed the work of the Merritt Island Garden Club. Well, their latest project will help make those drives along the NASA parkway much more scenic. The project involves mass plantings of Coreopsis along the medians of the parkway. Coreopsis, the Wildflower, is one of the easiest to maintain with nine varieties thriving in this climate. Wildflower plantings have little need for mowing, and research shows people don't litter as much in areas that are clean and beautiful. It



may even encourage less stress and relaxation on your way home after a hard day at work or school. Florida, of all states, has the greatest wealth of native plants. Our local native plants are both practical and attractive in the average rural or urban/suburban landscape. They also adapt to climate and conditions with fewer pest problems. (From literature obtained @ UF co. op. Service). University of Florida research demonstrates the superiority of native plants in our hot, humid summer months. Wildflowers work nicely with the going and ever increasing population as well. Water restrictions are here to stay. Today, anywhere from 30-70% of our water goes to irrigating lawns. This water use can be dramatically reduced by changing the way we landscape.

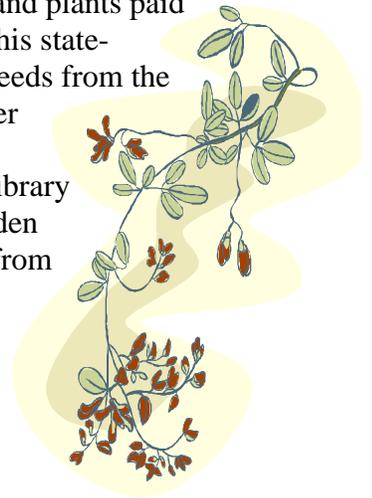
By planting native flowers, we can maintain a real Florida look, as well as put back and preserve some of what is rapidly disappearing. Florida's native wild plants are protected under Plant Protection Law, which encourages both conservation and propagation. Under this law, it is illegal to destroy, injure, harvest, collect, pick or remove any plant covered by the law without prior written permission from the land owner or legal occupant of the land.

In 1973 the Federal Highway Administration (FHWA) established "Operation Wildflower", which was created by Betty Bird Johnson. Florida already had an existing wildflower program that used seeds and plants paid for by a member of the National Council of State Garden Clubs. One way you can help this state-wide project is to purchase a new designer car tag, with the Coreopsis in the center. Proceeds from the designer tag project provide great benefits to our state program. Just imagine a "Wildflower Lane" across our little island to greet our guests as they arrive.

Summer is an excellent time to do research at your local library. The Merritt Island Library frequently has horticultural reps available with information. Also, the Merritt Island Garden Club, which has been in existence for over 35 years here on MI, has extensive programs from September through May. The programs take place 7:00 pm at the Veterans Memorial Center, 400 S. Sykes Creek Parkway. We would like you to join us.

A flower can wake a dream.

Thelma LaRoche, Merritt Island Garden Club



Sit Down, Rest Awhile

Feel free to sit a spell and enjoy the sights and sounds of nature on the newly installed benches along the VIC boardwalk. A park bench program started this spring as the result of a visitor's suggestion. Eugene Stearns of Prior Lake, MN, sparked the idea by donating funds to purchase a bench to provide his wife with a spot to rest along the VIC boardwalk during their frequent visits. MIWA matched his funds and purchased a bench manufactured by Barco Products. This durable, maintenance-free bench is made of 100% recycled plastic. Additional funds have been donated by Judge Joseph & Florette Schneider of Chicago, IL and Lt. General (Ret.) & Mrs. Forrest McCartney of Indian Harbor Beach, FL. The Schneiders made their donation in memory of Scott J. Maness. As many of you know, the VIC is dedicated to Scott

Maness and Beau Sauselein, both of whom died while fighting a wildfire at the Refuge in 1981. This is a perfect way to honor Scott, reflecting his love of nature and the Refuge.

So, take a moment to enjoy our outdoor "living room". You can pick up ideas for plantings and bird habitat for your own natural yard space. You'll be surprised at the abundance of nature in your own backyard!

Thank you to refuge volunteer Ed Larsen and refuge employee Rich Kautter for assembling and installing the benches. If you are interested in sponsoring a bench, contact Sandee Larsen at 321-861-2377.

Sandee Larsen, Bookstore Manager



No hare, just a slow-moving turtle

Turtles everywhere were rejoicing on Saturday, July 12th. “We are very proud of our heritage tonight”, says spoketurtle I.O. Hum. “Laura Loggerhead performed admirably, taking three hours to successfully nest. Our reputation as slow-moving creatures has remained intact.”

“That was the slowest moving turtle I have ever seen,” said Refuge Ranger Wayne Lindsey, who’s been scouting for sea turtle programs for years. “The typical turtle will spend an hour or an hour and a half to nest. This turtle did her species proud.”

Forty-one humans were on-hand to witness the nesting process in Canaveral National Seashore during the MIWA turtle watch program conducted by Refuge Ranger Sandy Edmondson. Following a one-hour presentation on sea turtles, the group huddled out to the beach in hopes of spotting a nesting loggerhead sea turtle. “As soon as we pulled into the Seashore at 11:20 pm, Ranger Wayne spotted a turtle coming out of the water at parking lot 8. I thought, “Wow-an early turtle. Excellent. Little did I know that she was determined to break loitering records.” Once the turtle began laying, the group approached to witness about 120 eggs drop for over an hour. After sufficiently covering her nest, the turtle began the long journey back to her home. With low tide and a very exhausted mother turtle, even the crawl back to the water seemed to take forever. As waves splashed over her shell 20 minutes later at 12:15 am, the MIWA group cheered and whistled. “I even saw a few people jump up and down,” said Canaveral National Seashore volunteer Jan Short.

“We can only hope this is a sign of things to come. Maintaining our status as the slowest moving animals on earth is very important to us. Laura Loggerhead has renewed our determinations to continually improve upon ourselves.”

Sandy Edmondson, Refuge Ranger



loggerhead hatchling on it’s way to the ocean : the first time. Photo by Beth Homa



A loggerhead heading back into the water after nesting. Photo by Beth Homa

New Horseshoe Crab Survey in Florida

The Florida Marine Research Institute (FMRI) has started a new horseshoe crab survey to locate and document horseshoe crab nesting beaches around the state. To document these important nesting sites, the FMRI relies on volunteers to report observations of nesting activity. The data include date and location of observation, whether or not crabs were mating, and estimates of crabs seen. More volunteers are needed. If you are interested in this program, call toll free, 1-800-252-9326, or email to horseshoe@fws.state.fl.us. This is an excellent opportunity to get involved in a scientific/conservation-oriented study.

Sandee Larsen, MIWA Bookstore Manager



Sea Turtle Hatchlings Stranded by Cold Water Upwelling

The recent coldwater upwelling had an impact on sea turtle hatchlings in Brevard County, with numerous reports of hatchlings floating at the waters edge as a result. Those hatchlings found on MINWR were taken to the Sea Turtle Preservation Society. They then made the necessary arrangements to take hatchlings to sea turtle rehabilitation centers, who then transported hatchlings by boat to warmer waters. On the beach monitored by Merritt Island National Wildlife Refuge staff, 328 loggerhead (*Caretta caretta*) hatchlings were found unable to swim on their own. This closed stretch of beach is monitored daily during nesting season. This season produced totals of 784 loggerhead nests, 15 green nests (*Chelonia mydas*) and 7 leatherback nests (*Dermochelys coriacea*). If you are interested in sea turtles, be sure to watch out for next year's MIWA Members-Only Turtle Walks.

Chris Wise, Refuge Biological Technician

Brevard Watercolor Society Exhibit

MIWA is hosting a three-month art exhibition by the Brevard Watercolor Society (BWS) at the Refuge Visitor Center. The art exhibition was timed so that those who attend will have an opportunity to visit the newly renovated MIWA gift shop. Nearly 50 watercolor paintings depicting Florida wildlife primarily seen on the Merritt Island National Wildlife Refuge will be exhibited from November 1, 2003 through January 31, 2004. The original watercolor paintings will be offered for sale, with a portion of the proceeds donated to MIWA. This will be a juried show by the BWS, which has many accomplished artists among their 200 members. The painting seen to the right by Witha Lacuesta is just one of the many that will be displayed in the Refuge Visitor Center.

An opening reception for the artists will be held on Saturday, November 1, from 4:30 to 6:30. MIWA members are cordially invited to attend the reception. In order to plan for refreshments we ask that you please RSVP to 321-861-2377 no later than October 27.

Darleen Hunt, MIWA Board Member



Knife, Fork or Spoonbill?

Have you ever eaten a formal dinner where your plate is surrounded by an amazing display of sparkling silver eating utensils in a variety of shapes and sizes? Some of those knives have straight edges; others are pointed or curved on the tip while others have a serrated jagged edge that might cut the toughest meat. And all of those forks! Some are long and curved while others are flat and small. How many different spoons do you need?

The answers lie in the question "What are you planning to eat?" Each utensil has its own specific function and is used for a particular culinary delight. Certainly you would not use picnic plastic to attack his formal meal, would you?

Now watch the birds as they eat their formal meals. No choice of utensils here. Each has just one beautifully shaped utensil to eat with. A BILL is straight and used like a "fork" to stab with (like an egret or phalarope) while a BEAK is curved, sharp, and used like a "knife" for tearing and cutting (like a hawk). You may forget about feather color, eye rings and leg shape! Often you can identify a bird simply by the shape of its bill or beak. Here are a few examples.

The tiny FORK shape of the warbler's bill (yellow rump or palm warbler for example) is used to quickly "fork down" berries, small seeds and bugs. The FLAT fork shape of some flycatchers (martins, kingbirds and phoebes) is WIDE and strong for flattening and holding onto larger flies and bugs. Great crested flycatchers, some nighthawks and nightjars have an additional set of brushes or stiff strainers on their wide, flat bills in order to make possible the rapid gathering of very tiny insects. It is kind of like a soup strainer! Cardinals, grosbeaks and some finches have thick, strong bills for cracking seeds just like you would use a nutcracker. (Continued on page 11)



Bookstore Buys

Cornell Lab of Ornithology **Birder's Life List & Diary** (3rd edition).....\$12.95

Sibley Field Guide to **Birds of Eastern North America**.....\$19.95

Sibley Field Guide to **Birds of Western North America**.....\$19.95

Youth Books:

Beaks! By Sneed B. Collard III. Off the page illustrations sure to grab the eye of any young birder!.....\$6.95

Bugs for Lunch By Margery Facklam. Nature inspired illustrations and a reference guide filled with bug facts.\$6.95

Frogs Sing Songs by Yvonne Winer. Featuring beautiful artwork and smoothly written verse.\$6.95

Don't forget to show your MIWA Membership Card to receive 10% off all purchases.

Florida's State Shell

All Floridians know that the state nickname is The Sunshine State. Most know that the state bird is the Mockingbird and the state flower is the Orange Blossom. A few may even know that the Sabal (Cabbage) Palm is the state tree, but does anyone know that there is a **Florida State Seashell**? In fact, fourteen of the twenty-three coastal states of the United States have officially designated state shells.

State legislatures have usually designated state shells because the particular species is common in the state's waters or of significant commercial value to the state. Others have been named by or for prominent state citizens. There are some interesting related stories. For instance, the state shell of New York is the Atlantic Bay Scallop. When it was first proposed, the bay scallops from Long Island had great commercial value, accounting for twenty percent of the entire national harvest of the delicious species. Typical of so many legislative initiatives, by the time the politicians got around to approving the motion (four years later), the population of the scallops had been decimated by a variety of factors. In another instance a state fossil shell was designated and thousands of brochures listing it as the state shell were published. Three years later (1987), a paleontologist with the Smithsonian determined that the shell was misidentified. It was not until 1991 that the state legislature finally gave the accurate name to the official state fossil shell.

Our Florida state shell is the Horse Conch (*Pleuroploca gigantean*), first described by Kiener in 1840. It is most distinguished by its size, being the largest gastropod in American waters. The Horse Conch grows up to two feet in length. Younger, smaller specimens have more color, with the aperture of the shell maintaining an orange hue while the back is less colorful. As the animal ages, a thick, dark protective cover called the periostracum envelops the shell. The operculum, what in life protects the animal by tightly closing the aperture when threatened, is thick and very tough. Horse conchs are carnivorous, primarily eating other mollusks and egg cases. The shell is found throughout the southern U.S. coast, extending into northeastern Mexican waters, but is most common on both coasts of Florida. It ranges from depths of over 100 feet to the shallow beaches. The Florida legislature officially designated the state shell in 1969 (House Bill #568) by a vote of 89 to 4.

Emmett B. (Bud) Ferguson, MD, MPH



Refuge Staff Update

Hello to...

...Jim Lyon, the new Biological Technician. Jim comes to us from Wisconsin, where he spent six years working for USGS. Jim has prior experience with aquatic vegetation, migrant songbirds, amphibians and common loons and is looking forward to learning even more here at MINWR.

..Tommy Hampton, who is working part-time as an carpenter at the refuge where he will be working on numerous projects including building kiosks and posting signs.

..Gail Peek, who is temporarily filling in for Cynthia Branham, who in turn is filling in for Sue Donche. Gail provides support at the administrative office and is a welcome addition to the team.

Goodbye to...

..Chris Wise, who will be finishing her second season as the sea turtle Biological Technician.

..Darren Hunt, who has left his position as a Forestry Technician, to return to his home in the Florida Keys.

Congrats to...

...Jim Lyon, who received a STAR Award for his

Dolphin Rescue

Early this summer the refuge received reports of a stranded bottlenose dolphin calf in the Indian River Lagoon. Biote Chris Wise canvassed the area, but was unable to locate the distressed animal. However, through the efforts of LE Officer Jason Vehrs, the calf was eventually located. Wise



Wise, Schardt and an HSWRI staffer prepare Spirit for transport. Photo by Marc Epstein.

aided by USFWS staff Jeff Schardt, secured the young dolphin and prepared it for transport. The Hubbs-SeaWorld Research Institute (HSWRI) was called in and arrived in time to assist in securing the animal, which was transferred to the Clearwater Marine Science Center (CMSC). The male calf, named Spirit by rescuers, weighed 62 pounds and was estimated to be three weeks old. Spirit who is still being bottled

Monkeypox Alert

There had been 85 confirmed cases of Monkeypox in the U.S. by late June 2003. This is significant for several reasons. It is the first time that Monkeypox has occurred in the Western Hemisphere. Monkeypox is caused by a virus (orthopox virus) similar to the Smallpox virus. It differs from Smallpox biologically and epidemiologically, but Smallpox immunization protects against Monkeypox, even if not given until up to two weeks after exposure to the virus. (It is the most effective if given within four days of exposure.) The name was given because the virus was first found in laboratory monkeys in 1958. The disease in humans was first reported in the Democratic Republic of the Congo in 1970, and, until recently, was thought to be restricted to tropical forest areas of Central and Western Africa where it lives in monkeys and other small mammals. The source of the infection in the U.S. appears to have been Gambian giant rats imported from Ghana to Texas and then shipped to an Illinois distributor. There were about 800 small mammals of nine different species, including prairie dogs, in the shipment.

Fifty-three human cases were investigated by early June 2003. All had contact with animals, and two also had contact with another patient's sore or ocular drainage. Fifty-one had direct or close contact with prairie dogs, one with a Gambian giant rat and one with a rabbit that became sick after exposure to a prairie dog in a veterinary clinic. Of these cases, most had a rash (83%), fever (73%), and/or cough or shortness of breath (64%). About half had swollen tender lymph nodes and sweats, and about one-third had sore throat and chills. Headache, nausea and/or vomiting occurred in 20%. There have been no deaths in the U.S. from Monkeypox, but up to 10% of those infected in some African outbreaks have died.

It is too early to know if the infection has spread to populations of wild prairie dogs, squirrels and other mammals. Infectious disease professionals and government agencies are working diligently to monitor importing, selling and buying of exotic animals and to educate the public on the risks, especially the importance of proper handling of sick pets. Owners of sick mammals, especially exotic species, are asked to call their veterinarian for instructions to avoid exposure to other pets when bringing animals in for care. Monkeypox is not the only concern; animals carry many diseases affecting humans. Even the recent headliner; "Severe Acute Respiratory Syndrome" (SARS) is thought to have come to humans through civet cats raised for meat along with other animals in Chinese markets. It has long been known that prairie dogs also carry plague and tularemia. There are at least 90,000 cases of salmonella bowel infection in the U.S. annually from birds and reptiles (primarily iguanas). All of us who enjoy nature and the outdoors need to be aware and need to educate young people of potential illnesses from the handling or bites of wild animals.

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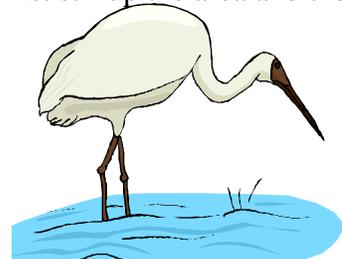
Knife, Fork or Spoonbill? continued from page 9)

Now let's take a look at those serrated, CURVED bills of wading and shore birds. Consider the white ibis, long-billed curlews and limpkins. All have long, curved bills, which they use not so much to stab with (like the egret or anhinga when they go after fish) but rather to PROBE with. A curved bill has more edge space than does a straight bill. With these curved bills, they can not only cut, but also probe a larger area of soil or water to find their food. The bills may be jagged on one edge (for cutting) and smooth on the other edge (for probing).



The spoonbill, flamingo and pelican have bills that are similar to large serving spoons. Not only do these bills probe and cut, but they also STRAIN out unwanted liquids.

Finally we have those funny looking UPWARD curved bills of the godwits and avocets. While long downward curved bills tend to be used for deep probing, these upward curved bills are used to "stir up" the surface area at the bottom of the pond or beach where food is just resting. These bills tend to be fine, narrow and delicate. These bills first stir up the area and then "ladle" the food. No need to crush or cut up anything here-just stir and scoop.



So as you prepare for your formal dinner and choose from that wide selection of silver utensils to use, you may think of the birds. Given no choice in the matter, these beautiful clever creatures use only that one design of bill or beak to do the same as you. Amazing!?!

Gail Jackson, Refuge Volunteer