

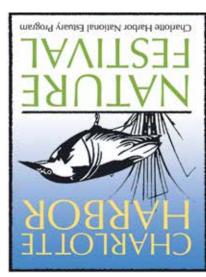
9974 • .M. 4 6 01 .M.A 01 *7102, 81 .voN bab, 2016, and Nov. 18, 2017*

2300 El Jobean Rd. (SR 776 in Port Charlotte, 2.5 miles west of US 41) Charlotte County Sports Complex

raffle. Refreshments and lunch will be available for purchase. This is a free event thanks to sponsors and proceeds from an onsite festival is organized and supported by a dedicated group of volunteers. and fishing and then receive a free fishing pole while supplies last! The be packed with games and activities. Children will also learn about fish Marine Laboratory mobile exhibit. The Children's Discovery Zone will ages, including more than 60 nature exhibits, local artists, and the Mote of southwest Florida through activities and exhibits for people of all Enjoy the day exploring and learning about the natural environment

a magnet and available for purchase. Proceeds support the festival. (1 per group while supplies last). The art above will be featured on Admission and parking are free and tote bags will be given as a gift

* The date and location in 2017 are not yet confirmed. Visit YouTube (CHNEP 1995 channel) to see videos of the festivals! Go to www.CHNEP.org/CHNF.html for more details.



the Friends of Charlotte Harbor Estuary, Inc. and mail to P. O. Box 511422, Punta Gorda, FL credit card or PayPal, visit their website at www.CHNEPfriends.org. Make checks payable to to enjoy the assistance of this 501(c)3 not-for-profit organization. To make a donation by by making a donation to the Friends of Charlotte Harbor Estuary, Inc.? The CHNEP is pleased ould you please support the work of Charlotte Harbor National Estuary Program (CHNEP)

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Support the CHNEP

Be sure to add the holidays you celebrate. -

Additional information about the CHNEP can be inspire you to do more to protect southwest Florida.

take a moment and complete a survey at www. Let us know what you think of our calendar. Please found throughout this calendar and at www.CHNEP.

Thank you for your time and comments. CHNEP.org/calendars.html.



33951-1422.

Friends of Charlotte Harbor Estuary, Inc. P. O. Box 511422, Punta Gorda, FL 33951-1422

56°⊅l\$ The CHNEP and Friends are pleased to provide you with this calendar in hopes that it will the Friends of Charlotte Harbor Estuary, Inc. This calendar is only available for sale from



Triangle Ranch, Manatee County | Glenn Gardner, G2photos

2001 Charlotte Harbor Watershed and the Fall 2016 issue of the CHNEP magazine Harbor Happenings Charlotte Harbor National Estuary Program

The CHNEP's thirteenth calendar of The Beauty of the Greater Charlotte Harbor Watershed

A partnership working to protect the natural environment of Florida from Venice to Bonita Springs to Winter Haven

SUBSCRIBE TO RECEIVE FREE IN THE MAIL. DONATE TO SUPPORT THE CHNEP AND CHNEP FRIENDS.

Charlotte Harbor National Estuary Program

Working together to protect the natural environment of Florida from Venice to Bonita Springs to Winter Haven

October 2016

CHNEP: The Charlotte Harbor National Estuary Program (CHNEP) is a partnership working to protect the natural environment in Florida from Venice to Bonita Springs to Winter Haven. The CHNEP is pleased to provide you with this, our thirteenth, calendar in the hope that it will inspire you to do more to protect southwest Florida.

tional Estuary Progra

Enjoy: We encourage you to enjoy the calendar and to frame images once the year is over. (Each featured image fits in a 12"x9" frame.) If you do not wish to use this calendar, please give it away. At the end of the year, please consider donating the calendar to a teacher for classroom projects or to an artist for inspiration.

Distribution: Calendars are mailed to subscribers of the CHNEP's free magazine, *Harbor Happenings*, as of Sept. 15 and are available for pickup at select locations and events throughout the watershed. If you are not already receiving *Harbor Happenings*, please subscribe to stay in touch and learn about the many environmental "happenings" in the Greater Charlotte Harbor Watershed. The redesigned Fall 2016 issue is included with this calendar. Visit *www.CHNEP.org/subscribe.html* to subscribe or to learn where you can pick up a calendar.

Process: By July 15, the CHNEP requests people to submit up to three photographs or paintings—created anytime—of the beauty of the native, natural environment found in the Greater Charlotte Harbor Watershed. The result is this calendar.

Holidays: The calendar includes select environmental celebrations and the holidays recognized by the federal government. Visit *www. CHNEP.org/calendars.html* to find easy references to other holidays, including Easter, that you can add as you desire.



Anhinga, Circle B Bar Reserve in Polk County | John Guiseppi

What do you think? Please take a few minutes to let us know what you think of this calendar by completing an online evaluation at https://www.surveymonkey. com/r/CHNEPcalendarsurvey or www. CHNEP.org/calendars.html. Your response will help determine if a 2018 calendar will be produced and if an issue of Harbor Happenings will again be included. While we expect to create a 2018 calendar, the final decision to produce the CHNEP's fourteenth annual calendar won't be made until May 2017. If you prefer, you may mail your comments to CHNEP Calendar, 326 West Marion Ave., Punta Gorda, FL 33950-4417.



Red-Shouldered Hawks, Six Mile Cypress Slough in Fort Myers | Eileen Fonferko, Marshfield Photography

The CHNEP owes special thanks to:

- Volunteers who serve on the CHNEP Policy, Management, Technical Advisory and Citizens Advisory committees.
- Financial partners, sponsors and donors. (See listing on separate page.)
- Those who submitted entries of the beauty found within the Greater Charlotte Harbor Watershed include Javon Alexandre; Ellen Aycock; Carolyn Babb; Theresa Baldwin; Nancy Bangham; Maryle Barbé; Diana Rodriguez Berkofsky; Anjana Bhatt; Piksum Blau; Charlotte Bloomquist; Jason Boeckman; Heather Bolyn-Becker; Malcolm J. Brenner; Dick Brewer; Kathy Buckard; Tom Buckard; Heather Burney; Ken Carpenter; Laura Casey; Cary Catts; Sue Christensen; Jeanette Chupack; Sue Cianci; Nicole Cicchino; Laura Coglan; Barbara Ann Comer; Kristen Conti; Sandy Cooper; Daniel Cormier; Lena Dallas; Pam Davis; Brenda Lee De Leon; Kimberly DeCamp; Pascha Donaldson; Molly DuVall; Bob Eliott; Ashley M. Ellis; Bill Evoy; Jean H. Evoy; John Fagan; Laura Ferrell; Mill Fisler; Lori Flaherty; Mike Flaherty; Eileen Fonferko; Kayla Fortune; Rick Fried; Eva Furner; Glenn Gardner; Kathy Genaw; Julie Gerhard; Bill Gimbel; Nancy Glickman; Jillian Gorra; Brian Grant; Peggy A. Grant; Russ Green; Alexander Gregory; Steve Griffin; John Guiseppi; Wendy Helton; Mike Herms; Miguel



Hawksbill Sea Turtle, Matlacha | Kathy Buckard

Hnatow; Susan E. Hoffman; Marcia Horne; Robert Howe; Amy Hoyt; Bernie Hynes; Rose Jesse; Judy L. Johnson; Julie Jones; Ken Jones; Rick Joyce; Sheri Judah; Brant Julius; Heather Julius; Dave Karrer; Deb Kemmerer; Lizz King; Cherie LaFlamme; Sarah Lathrop; Mitch Leavitt; Mike Leffler; Andrew Lilyquist; Kandy Love; Mary Lundeberg; Patty MacInnis; John R. McConnell, Jr.; Butch McDaniel; Priscilla McDaniel; Pam McDonald; PJ McGowan; Robin Mett; Mark Mikolon; Hans Mooyman; Linda Moreau; Michael Newhouse; Patti Nicola; Liz Noffsinger; AR Novak; Linda Parker; Edward J. Pelegrino; Doug Philipsen; Teresa Philipsen; Jamie Pipher; Marc Pletcher; Sandy Poore; Barbara Presner-McKane; Marky Proch; Alouise Skehan Pyle; Carl Rader; Judith Regnery; Robert Richard; Steven Richardson; Ava Riloff; Joel Riloff; Roger F. Roy; Steve Russell; Hugo Santiago-Ramos; Rosalie Scanlon; Craig Schmittler; Karen Scott; Kathleen Smith; Susan M. Smith; Leah Snell; Vern Southard; Jeff Spence; Lynette Spence; Janet Stebbins; Sherry Steinback; Scott Stone; John Swank; Connie Sweet; Len Tatko; Michael Tisch; Norman Toback; Andrea B. Trank; Kara Tyler-Julian; Marta Ugas-Carpenter; Dennis Von Linden; Eary Warren; Gary Warren; Jennifer Warren; Jerry Waters; Sally Weigand; Carolyn J. Weise; Laurie Wind; Jo Wingate; Michelle Woods; Cheryl Wren; Linda Wroble; Marianne Wroble; Roseline M. Young; Thomas Zinneman; David Zuhusky



Charlotte Harbor National Estuary Program

326 West Marion Avenue Punta Gorda, FL 33950-4417 941/575-5090 | Toll-Free 866/835-5785 www.CHNEP.org Director: Jennifer Hecker | 941/575-3392 • *jennifer@chnep.org* Deputy Director: Liz Donley | 941/575-3390 • *ldonley@chnep.org* Communications Manager: Maran Brainard Hilgendorf | 941/575-3374 • *maran@chnep.org*

Program Scientist: Judy Ott | 941/575-3385 • jott@chnep.org

Friends of Charlotte Harbor Estuary, Inc.

P. O. Box 511422, Punta Gorda, FL 33950-1422 • 239/292-6519 • www.CHNEPfriends.org

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Royal Terns, Sanibel | Miguel Hnatow, www.photosmah.com

January	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2017	1 NEW YEAR'S DAY	2 CHNEP office is closed.	3	4	5 Grirst quarter	6	7
LEARN MORE about CHNEP's partnership efforts to protect the natural environment of southwest Florida.							
The CHNEP Citizens Academy is an exciting new online way to learn why the natural environment of southwest Florida is so different. Subscribe to receive the free quarterly magazine <i>Harbor</i> <i>Happenings</i> .	8	9	10	11	12 O _{full moon}	13	14
Explore information on the program website <i>www.CHINEP.</i> <i>org.</i> Find us on YouTube, Tumblr, Facebook, LinkedIn and other platforms. Mangrove Shoreline <i>Cary Catts</i>	15	16 MARTIN LUTHER KING JR. DAY CHNEP office is closed.	17	18	19 DLAST QUARTER	20 FLORIDA ARBOR DAY	21
	22	23	24	25 Florid	26 Ia Black Bear <i>Patti Nicola</i>	27	28 • NEW MOON
A RLOTTE HARBOR Vational Estuary Program	29	30	31			December 2016 S M T W R F S 1 2 3 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	February 2017 S M V R S S M T W R F S 1 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28



Roseate Spoonbill, Amberjack Environmental Park in Placida | Mary Lundeberg, Nature Connections



February	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2017 TRANSFORM YOUR YARD into a beautiful oasis for people and wildlife. Consider the following 10 guidelines for	January 2017 S M T W R F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	March 2017 S M T W R F S 1 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31		1 Green Treefrog, Mosaic Payne Creek Reclamation Steve Griffin Wildlife Photography	2	3	4 (FIRST QUARTER
 climate-friendly landscaping: Minimize Mowing Incorporate Native Plants Reduce Hardened Surfaces Conserve Energy by Conserving Water Minimize/Eliminate Fertilizer 	5	6	7	8	9	10	11 Ofull moon

nd Pesticide I

 and Pesticide Use Reuse Yard Waste Increase Tree Canopy Create Biodiversity Naturalize the Shoreline Engage Your Neighborhood 	12	13	14	15	16	17	18 DLAST QUARTER CONSERVATION LANDSCAPING
Smalltooth Sawfish, Myakka River Doug Philipsen							WORKSHOP FOR HARDEE, DESOTO AND HIGHLANDS COUNTY RESIDENTS
	19	20 WASHINGTON'S BIRTHDAY CHNEP office is closed.	21	22	23	24	25
A CARLES				Burrowing Owls Roselin	e M. Young	Tiger Swall Lakeland	lowtail on Firebush, Robin Mett
HARLOTTE HARBOR Varional Estuary Program	26 • NEW MOON	27	28				



Alligators, Babcock Ranch Preserve | Malcolm J. Brenner, Eyes Open Media



March	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2017 Every three years the CHNEP hosts the Charlotte Harbor Watershed Summit to learn about current research, restoration efforts and critical	February 2017 S M T W R F S 1 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	April 2017 S M T W R F S 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29		1 GREAT AMERICAN CLEANUP MARCH 1- MAY 31 Sherman Fox Squirrel, Arcadia Jerry Waters Nature Photography	2	3	4
environmental issues affecting the Charlotte Harbor watershed, to review progress and to bring stakeholders together. Information can be found at <i>www.CHNEP.org</i> . The registration page will be on	5 C FIRST QUARTER	6	7	8	9	10	11

<i>www.EventBrite.com</i> , search for CHNEP in Florida.									
CHARLOTTE HARBOR WATERSHED SUMMIT March 28–30, 2017 Charlotte Harbor Event & Conference Center, Punta Gorda Marbled Godwits and Willets, Bunche Beach in Lee County <i>Eary Warren</i>	12	O _{full moon} Daylight- saving time begins	13		14	15	16	17	18
	19		20) LAST QUARTER VERNAL EQUINOX	21	22	23	24	25 American Oystercatcher Jeanette Chupack, www. jchupackart.us
HARLOTTE HARBOR Jaconal Estuary Program	26		27		28	29 RBOR WATERSHED SUMM	30 IT: March 28-30	31	



Egret Nesting, Peace River | Bernie Hynes, Photo Adventures Camera Club



April	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2017 THE CHNEP OFFERS GRANTS to help <i>you</i> do more to protect the natural environment. These grants are open to anyone, including individuals, community groups,	March 2017 S M T W R F S 1 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	May 2017 S M T W R F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31			Port C Florid	er Tortoise, YMCA Park in Charlotte <i>Kathy Genaw</i> a Scrub-Jay, Cape Coral o Glickman	1
volunteers, service organizations, businesses, government agencies	2	3 C FIRST QUARTER	4	5	6	7	8
and educational entities, but must							
occur within the CHNEP study area. Public Outreach Grants (up to							
\$5,000, applications due Sept. 6) are							
available once a year. Micro-grants							
(usually up to \$250) are available							

(usually up to \$250) are available year round.							
The CHNEP also offers grant-writing assistance for grants issued by others for projects that help protect and restore our estuaries and watersheds. Green Anole <i>Kayla Fortune</i>	9	10	11 O _{full moon}	12	13	14	15
	16	17	18	19 DLAST QUARTER	20	21	22 EARTH DAY
CHARLOTTE HARBOR Vational Estuary Program	23 30	24	25	26 • NEW MOON	27	28 NATIONAL ARBOR DAY	29



Loggerhead, Manasota Key in Charlotte County | Judy Johnson, Wildlife Lover from Savannah



May	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2017		1 SEA TURTLE SEASON BEGINS	2	3 C FIRST QUARTER	4	5	6
Adventures in the Charlotte Harbor Watershed: A Story of Four Animals and Their Neighborhoods This 60-page book helps		Least Tern with Egg Kristen Conti, www.Golf- BreezeRealty.com					
readers better understand the natural environment of southwest Florida. Each year since 2007–08 the CHNEP has provided copies to seven school districts who give a copy to 18,000 students in the third, fourth or fifth grade. Watch	7	8	9	10 O _{full moon}	11	12	13

read-a-long videos on YouTube channel CHNEP 1995.							
The book can be purchased from the Friends of Charlotte Harbor Estuary (<i>www.CHNEPfriends.</i> <i>org</i>) and is available free as a PDF file (<i>www.CHNEP.org/</i> <i>Adventures.html</i>). Fawn, Myakka River State Park	14	15	16	17	18	19 DLAST QUARTER	20
Diana Rodriguez Berkofsky							
	21	22	23	24	25 •NEW MOON Storm Clouds Laura Casey	26	27
A RLOTTE HARBOR Valional Estuary Program	28	29 MEMORIAL DAY CHNEP office is closed.	30	31		April 2017 S M F S S M T W R F S 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 25 26 27 28 29	June 2017 S M T W R F S 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

THE MAGAZINE OF THE CHARLOTTE HARBOR NATIONAL ESTUARY PROGRAM

Working together to protect the natural environment from Venice to Bonita Springs to Winter Haven

One thing? What is the one thing you wish

people knew about the natural environment of southwest Florida? Send in your response by taking the threequestion survey at www.surveymonkey. com/r/CHNEPOneThing. Your input will help guide CHNEP in the topics covered in Harbor Happenings, new online courses in the CHNEP Citizens Academy, topics presented at various events and more! Thanks to all who already responded.

Reestablishing a more natural water flow

Hydrological restoration of Caloosahatchee Creeks Preserve, a Conservation 20/20 preserve Cathy Olson, Lee County Conservation 20/20

he Caloosahatchee River was once a narrow, shallow, meandering river beginning just east of LaBelle at the former Lake Flirt. In the late 1800s, dredging from Lake Flirt to Lake Okeechobee connected the two water bodies. Subsequent dredging deepened, widened and straightened the Caloosahatchee River, increasing its flow toward Fort Myers and the Gulf of Mexico. Additionally, many of the river's surrounding wetlands were drained or filled with dredge sediments, thus reducing the water-holding and filtering capacity of these wetlands.

To reestablish a more natural system, the Lee County Conservation 20/20 program recently completed a hydrological restoration project on a portion of Caloosahatchee Creeks Preserve in North Fort Myers. The main parcel of the preserve was purchased in 2000, with additions made through 2015. Restoration efforts began on the eastern portion of the preserve and moved west over time. This recent restoration project included blocking some ditches, connecting other ditches to one another and the excavation of a sinuous channel on the western portion of the preserve. These changes reconnected and reestablished wetlands that had been filled when the Caloosahatchee River was channelized. Wetlands that were cut off are now connected to the Caloosahatchee River and a new creek channel similar to what was previously filled has been reestablished.

Restoration and reconnection of wetlands allow nitrogen and phosphorus in water draining from residential areas to be filtered prior to entering the Caloosahatchee River and, subsequently, the Gulf of Mexico. These efforts have also provided habitat for wildlife, including state and federally protected species such as the wood stork and small-toothed sawfish.

In addition to this recently completed hydrological restoration project, Conservation 20/20 staff began the initial control of invasive nonnative plant species, including Brazilian pepper, Australian pine and lead tree, on 54 acres of the preserve. This acreage is owned by the South Florida Water Management District but co-managed with Conservation 20/20.

Funding for the hydrological restoration project was provided by the Lee County Conservation 20/20 program and the Florida Legislature, which provided \$250,000. Funding for invasive plant management was provided by the Florida Fish and Wildlife Conservation Commission Bureau of Invasive Plant Management.



Caloosahatchee West looking north. Photo by Aero Photo.

Public access to the preserve is available in two locations for recreational activities including hiking, kayaking, picnicking and nature photography. Please visit Conservation2020.org for more information about this and additional Conservation 20/20 preserves and restoration projects.

CHNEP Director: Lisa Beever served as director from March 6, 2002, to Sept. 30, 2016. Jennifer Hecker will begin as CHNEP's director on Nov. 7, 2016. (The next director had not been announced prior to the printing of the calendar.)

CHNEP Meetings and Events

he CHNEP partnership is guided by its Management Conference of four committees. The Policy Committee establishes general policies and goals for the Program and executes ultimate authority in program administration. The Management Committee develops and reviews work plans, funding requests, work products and other activities. The Citizens Advisory Committee (CAC) provides a mechanism for citizen input and helps develop and promote public information and education programs. The Technical Advisory Committee (TAC) is the scientific and technical voice of the program.

All meetings are open, but the public is encouraged to join the Citizens Advisory Committee. Membership is open to all who are interested in protecting the natural environment bounded by Venice, Estero Bay and Winter Haven.

These dates are tentative. Confirm dates and obtain locations and agendas at www.CHNEP.org. Additional meetings and events are also posted on this website.

Nov. 19

Feb. 9

Feb. 15

Feb. 17

Feb. 18

March 9

h 28-30*

April 13 April 19

April 28

May 11

TBD

July 15

July 20

July 28

Aug. 1

Aug. 9

Aug. 10

Sept. 6

TBD

TBD

Oct. 12

Oct. 18

Oct. 27

Nov. 9

Nov. 18

or CHNEP.



Since 2005, the calendar has shown the beauty and diversity of the natural environment through donated images. Each 9" x 12" featured image is also suitable for framing! To receive the quarterly 16-page magazine and yearly calendar, subscribe! You have options. There are two ways to subscribe to receive printed documents: (1) Complete the online form at www.CHNEP.org/subscribe.html. (2) Mail your subscription request with your mailing address to CHNEP Harbor Happenings, P. O. Box 511422, Punta Gorda, FL 33951-1422. If you can, please complete the online form.

Are you a subscriber?

year's calendar in the mail.

Since 1997, the magazine has provided information on the environmental "happenings" in southwest Florida as a tool to educate, inform and motivate.

Uid you receive this publication by f you'd like to receive announcements from CHNEP by picking it up from one of CHNEP's email, please subscribe by visiting www.CHNEP.org/submany wonderful partners? You can scribe.html. The best news is you control what information subscribe to receive Harbor Hap- to receive. CHNEP initiatives are grouped as events, grants, penings three times a year and next projects and Harbor Happenings digital edition of CHNEP's quarterly magazine. (Note: To receive the calendar in the mail, you must be receiving Harbor Happenings in the mail. If you receive the printed version and would like to stop, email Maran@chnep.org with "cancel" in the subject line. Be sure to provide your name and address.) The CHNEP partnership is guided by its Management Conference of four committees and enjoys the assistance of a nonprofit organization. Each one has its own list. CHNEP often shares important information from our partners.

2016

Charlotte Harbor Nature Festival 2017

2017
Technical Advisory Committee (TAC)
Citizens Advisory Committee (CAC)
Management Committee
Conservation Landscaping/Hardee-DeSoto
Policy Committee
Charlotte Harbor Watershed Summit Marc
Technical Advisory Committee (TAC)
Citizens Advisory Committee (CAC)
Management Committee
Policy Committee
Training
CHNEP 2018 Calendar entries due
Technical Advisory Committee (TAC)
Management Committee
CHNEP Song Writing Contest entries due
Citizens Advisory Committee (CAC)
Policy Committee
Public Outreach Grant applications due
Conservation Land Conference*
Environmental Education Network
Technical Advisory Committee (TAC)
Citizens Advisory Committee (CAC)
Management Committee
Policy Committee
Charlotte Harbor Nature Festival
* For details and to register, go to www.EventBrite.com, search for

The online subscription form allows subscribers to provide multiple addresses and indicate where to send particular issues. Our goal is to mail Harbor Happenings in early January, April, July and the calendar by November. (To help manage costs, the fall issue of Harbor Happenings was postponed and distributed with the calendar.) Every three years we will ask you to confirm your continued interest.



CHNEP Friends PO Box 511422

Punta Gorda FL 33951-1422

239/292-6519 • www.CHNEPfriends.org

The CHNEP enjoys the assistance of the 501(c)3 not-for-profit known as the Friends of Charlotte Harbor Estuary (aka CHNEP Friends).



Charlotte Harbor National Estuary Program 326 West Marion Ave. Punta Gorda FL 33950-4416 941/575-5090 • Toll-Free 866/835-5785 Fax 239/575-3365 • www.CHNEP.org

Jennifer Hecker, Director • jennifer@chnep.org | 941/575-3392 Liz Donley, Contracts & Grants Mgr • Idonley@chnep.org | 941/575-3390 Maran Hilgendorf, Communications Mgr • maran@chnep.org | 941/575-3374 Judy Ott, Program Scientist • jott@chnep.org | 941/575-3385

Follow us on:

- YouTube: https://www.youtube.com, search for CHNEP1995.
- Tumblr: *http://chnep.tumblr.com*

• EventBrite: www.EventBrite.com, search for CHNEP Other social media used by the CHNEP include the website, a repository of all things CHNEP (www.CHNEP.org), Facebook, Twitter (@chnepfriends) and LinkedIn.

We hope you'll join us as a member of CHNEP's partnership to protect the natural environment of southwest Florida.

Harbor Happenings Fall 2016: Volume 20, Issue 3 **EDITOR:** Maran Hilgendorf, *maran@chnep.org*

CONTRIBUTORS: David Craun, Hansje Gold-Krueck, Amy Hoyt, Doug MacGregor, Carol Mahler, Cathy Olson, Debi Osborne, Glenn Pittard, Kharli Rose, Tricia Ryan, Janice Sylvain, Ann Weaver, Dawn Witherington

The CHNEP publishes this free quarterly magazine in cooperation with the CHNEP Friends to provide information about the environmental "happenings" in the CHNEP study area. News items, photographs and letters are welcome and may be submitted to the editor by mail or email. Deadlines are February 1, May 1, August 1 and November 1. The magazine is typically distributed in January, April, July and September. To help manage costs, since 2013 the fall issues have been postponed and distributed as part of the calendar.

The views expressed herein are those of the authors and do not necessarily reflect the views of the CHNEP Friends or CHNEP or its cooperating agencies and associations. The mention of trade names or commercial products does not constitute, in any way, an endorsement or recommendation for use.



Pelicans and Shorebirds, Tarpon Bay at J. N. "Ding" Darling National Wildlife Refuge | Rosalie Scanlon, rosalie-scanlon.pixels.com



he National Estuary Program was established in 1987 by an amendment to the Clean Water Act to identify, restore and protect estuaries of the United States. In 1995, Governor Lawton Chiles submitted an application to designate the estuarine system around Charlotte Harbor. The U.S. Environmental Protection Agency (EPA) accepted the application and the Charlotte Harbor National Estuary Program (CHNEP) was created. There are now 28 "estuaries of national significance."

For more than 20 years, the Charlotte Harbor National Estuary Program (CHNEP) has been protecting the natural environment of southwest Florida by engaging local communities. The CHNEP's focus is on improving water quality in estuaries while maintaining the integrity of the natural system as a whole — chemical, physical and biological properties as well as its economic, recreational and aesthetic values — thereby strengthening the land-water connection.

From the beginning, the CHNEP partnership of citizens, elected officials, resource managers, and commercial and recreational resource users have worked together as an advocate for the 4,700-square-mile estuarine watershed from Venice to Bonita Springs to Winter Haven by building consensus that is based on sound science.

The partnership team meets as four committees that together are known as the Management Conference. The Policy Committee is the final authority over the CHNEP. The Management Committee oversees program operation. The Technical Advisory Committee (TAC) guides technical decisions. The Citizens Advisory Committee (CAC) represents the interests of the public and guides outreach decisions.

The CHNEP's four committees collectively are able to bring diverse interests, expertise and resources together to focus on issues in a holistic way. Together they are able to cooperate to identify gaps, prioritize needs and offer resources so that the sum is greater than the total of the individual contributions.

Each CHNEP committee meets four times a year and other times as needed. Membership in both the Management and Policy committees are appointed by the agencies listed in the bylaws. People interested in joining the TAC or CAC should contact CHNEP staff for guidance. are financial partners of the CHNEP. Some projects are supported by sponsors and grants received from foundations, organizations and businesses. The CHNEP enjoys the assistance of the Friends of Charlotte Harbor Estuary, Inc., a not-for-profit organization, that accepts donations, registration fees, sponsor support and grants for CHNEP outreach projects.

The CHNEP reaches the public through its quarterly magazine that focuses on environmental "happenings" in the region, its calendars of donated images, the Charlotte Harbor Nature Festival and in other ways. The website is a repository for the CHNEP and can be viewed on multiple devices. We're now on social media, including YouTube, Tumblr, Facebook, Twitter and LinkedIn. Join us! he CHNEP study area is a special place. Three large rivers — the Myakka, Peace and Caloosahatchee and many creeks flow westward to the Gulf of Mexico. When these rivers meet the salty water of the Gulf of Mexico, they form estuaries, which are one of the most productive natural systems on earth that help protect and restore our estuaries and watersheds.

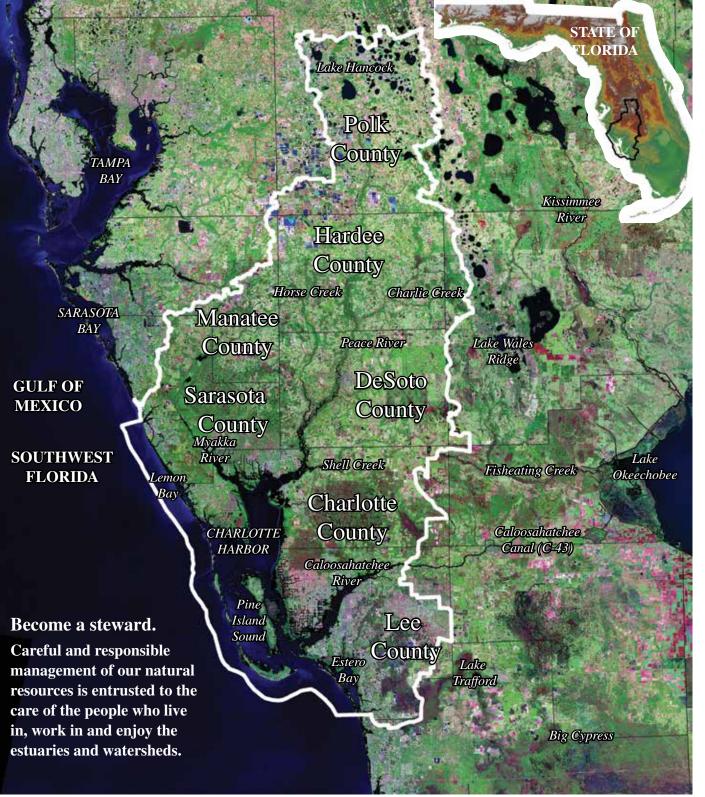
Please join our partnership to protect the natural environment of southwest Florida. Learn more at *www. CHNEP.org*, attend an event or volunteer on projects.

An estuary is a partially enclosed body of water where fresh water from the land and rivers mixes with salt water. In western Florida, the Gulf of Mexico provides the salt water. Harbors, bays, lagoons and portions of rivers are estuaries. Healthy estuaries are among the most productive and valuable places on earth and are necessary for humans and wildlife. Estuaries are also called bays, harbors, sounds, passes, bayous, bights, rivers and creeks (tidal portion).

A series of bays, beaches, barrier islands and mangroves dominate the coastal environments. Twelve barrier islands protect the estuaries and the mainland from storm waves and floods. Salt water from the Gulf of Mexico enters through 11 passes located between the barrier islands and San Carlos Bay, the mouth of the Caloosahatchee River. Passes are dynamic and close, shift and open because of natural events, such as hurricanes, and human efforts to maintain them.

The land from which fresh water drains into the estuary is the estuary's watershed. The CHNEP 4,700-squaremile watershed includes Lee, Charlotte, DeSoto and Hardee counties and portions of Polk, Manatee and Sarasota counties. It includes the Myakka, Peace and tidal Caloosahatchee river watersheds. The waters of the estuaries can't be protected unless the water from the land that drains into the estuaries is also protected.

The Charlotte Harbor estuarine system is mostly influenced by its large rivers. The amount of salt in each estuary varies dramatically, depending in part on the large fluctuations of fresh water from the rivers and streams.



CHNEP meetings are open to the public and operate under Florida's Government-in-the-Sunshine laws.

Local problems are identified, goals established, information collected and special projects are funded with a *Comprehensive Conservation and Management Plan* (CCMP). The plan identifies the region's common priority environmental issues — stewardship gaps, fish and wildlife habitat loss, water quality degradation and hydrologic alterations (water flow) — and the actions needed to solve them. When the CCMP was first completed and accepted in 2001, it marked the beginning of action to protect and restore the estuaries and watersheds. The plan was updated in 2008 and in 2013. It is being updated again for completion in 2018.

The CHNEP implements the CCMP by building partnerships to develop integrated plans, education and outreach programs, and management structures to achieve a sustainable balance between the economy, society and the environment.

The CHNEP's federal parent is the EPA. As of October 1, 2014, the CHNEP's local host is the City of Punta Gorda. Many government agencies, counties and cities CHNEP *Harbor Happenings*

Fall 2016: Volume 20, Number 3



Immature White Ibis and Mangrove Water Snake | Patty MacInnis, PattyMacInnisPhotography.com

NRIOTTE HARB

CHNEP Financial Supporters

The CHNEP 2017 calendar is made possible because of support received since October 1, 2016, from CHNEP's financial partners, sponsors and donors.

CHNEP Financial 2016–2017 Partners: The CHNEP financial partners since October 2016 include the U.S. Environmental Protection

Agency, Southwest Florida Water Management District, Florida Department of Environmental Protection, Peace River Manasota Regional Water Supply Authority, the counties of Polk, Sarasota, Manatee, Lee and Charlotte, and the cities of Bonita Springs, Sanibel, Fort Myers, Cape Coral, Punta Gorda, North Port, Venice and Winter Haven.

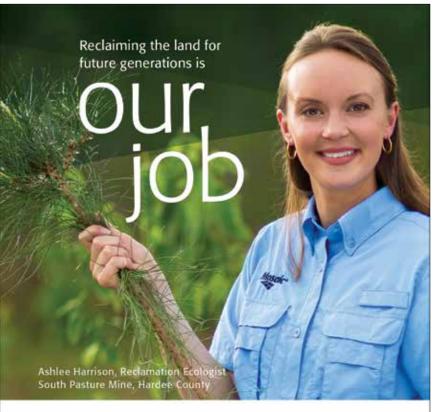
Calendar Sponsors: Sponsors have helped offset printing and distribution costs of CHNEP calendars since 2012. The CHNEP thanks Mosaic, Ken Virtue Realty and Coastal Wildlife Club for sponsoring the 2017 calendar. Would you sponsor the CHNEP 2018 calendar? The sponsor placement size ranges from



Coastal Wildlife Club www.CoastalWildlifeClub.org



CHARLOTTE HARBOR'S BEST KEN VIRTUE 941-204-9376 1133 BAL HARBOR BLVD, PUNTA GORDA ISLES



2"x1" for \$200 up to 12" wide x 18" high for \$21,600 (\$100/inch). If you have any questions, please contact Maran Hilgendorf (*maran@chnep.org*, 866/835-5785).

Donations: Donors who provided \$100 or more since the 2016 calendar include Richard Brewer, Joe Brinton, George Bryce, Bruce and Janet Bunch, Regina Clare Burke, Bob Clark, Roger and Karen De Bruler, Gene and Claudia Duncan, Lois Hatfield, Robert Hilgendorf, Mr. and Mrs. Charles Legette, Kate McKenney, Sal C. Mellon, Carol L. Miller, Don Novak, Carolyn R. Perrone, Carol L. Rose and GE Foundation, Jelks Family Foundation, Peace River Audubon Society, Punta Gorda Garden Club and Sierra Club Greater Charlotte Harbor Chapter.

CHNEP Friends: The CHNEP is pleased to join the many organizations that enjoy the assistance of a



501(c)3 not-for-profit organization. Would you please support the outreach efforts of CHNEP by making a donation to the Friends of Charlotte Harbor Estuary, Inc. (AKA CHNEP Friends)? Donations help finance our many education and outreach programs. To learn more on how to make a donation by credit card or PayPal, visit *www. CHNEPfriends.org.* Checks may be made payable to the Friends of Charlotte Harbor Estuary and mailed to CHNEP Friends, P. O. Box 511422, Punta Gorda, FL 33951-1422.

Donations of \$100 or more received by Sept. 15, 2017, will be acknowledged in the 2018 calendar.

A COPY OF THE OFFICIAL REGISTRATION AND FINANCIAL INFORMA-TION MAY BE OBTAINED FROM THE DIVISION OF CONSUMER SERVICES BY CALLING TOLL-FREE 1-800/HELPFLA WITHIN THE STATE OR VIA THE INTERNET AT WWW.800HELPFLA.COM. REGISTRATION DOES NOT IMPLY ENDORSEMENT, APPROVAL, OR RECOMMENDATION BY THE STATE.

Thank you.

Before phosphate operations begin, I work with scientists, engineers and environmental specialists to carefully plan for reclaimed land uses. Last year, those plans included planting more than 2 million trees — and reclaiming land for wildlife habitats, parks, agriculture and other productive uses. There's a reason Mosaic's Florida employees are so passionate about reclamation: we know our kids and grandkids will enjoy these lands for generations to come.

We help the world grow the food it needs.



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mosaicco.com/florida

Support the CHNEP by making a donation now. *It's easy!* Fall 2016: Volume 20, Number 3

Twilight Darner, Pine Island in Lee County Nancy Glickman CHNEP Harbor Happenings

Have your work published in the **CHNEP 2018 calendar**

Have you captured an image of the beauty of the native, natural environment? The image could have been captured today or 50 years ago in a photograph or a painting within the CHNEP study area of Charlotte, DeSoto, Hardee and Lee counties and portions of Manatee, Polk and Sarasota counties. Whether you are young or old, professional or amateur, you may submit up to three (3) digitized entries for consideration by the people within the region for inclusion in the CHNEP 2018 calendar.

To enter, complete the release form and submit your images by 5 p.m., July 15, 2017. If you can, please complete the online release form and submit your images using a file sharing service such as DropBox.

There are two ways to submit a release form: complete the online form at https:// www.surveymonkey.com/r/CHNEPcalendarentryform or complete and mail the form from this page. If you can, please complete the online form. The release form allows the CHNEP to use the entries in items such as the calendar, the Harbor Happenings magazine or on the CHNEP website.

There are three ways to submit JPEG or TIFF versions of your images: use a file sharing service, mail on CD or thumb drive or email as attachments. Images will only be considered for selection if a completed release form is received and if the images are submitted as digital files. A signed model release form (available at www.CHNEP.org/ *calendars.html*) must also be provided for each recognizable person in the image(s).

Submit your images by:

- A file sharing service such as DropBox. Share that link and send a notice to maran@ *chnep.org* that you have used a file sharing service.
- Mail the CD or thumb drive to: CHNEP Calendar, 326 West Marion Ave., Punta Gorda, FL 33950-4417. Please write your name and "2018" on the item mailed.
- Email images up to 15 MG in size as attachments to maran@chnep.org. For those sending large files or who use a Mac computer, instead of emailing your images consider using a free service such as DropBox. In the past, some who emailed large files or used a Mac had their attachments converted into embedded files by the computers. Embedded files lose too much resolution, making the entries unusable for commercial printing.

Confirmations will be emailed at the beginning of each week. Do not consider your images received until you receive a confirmation email. We recommend you check your spam/ junk folders in your email account.

Additional guidance and PDF files of published calendars are provided at www.CHNEP. org/calendars.html. Please keep in mind:

- Submit the best version of the entries you have available.
- Don't submit images that are similar to each other.
- Images of animals in distress because of possible interference or harassment will not be considered.



Scarlet Skimmer, Powell Creek Preserve in Lee County | Jennifer Warren



Hermit Crab | Laurie Wind

Myakka Canopy Walkway, Myakka River Sate Park | Linda Wroble of Schenectady, NY



- The CHNEP is a partnership to protect the native, natural environment of southwest Florida. The calendar must be consistent with this purpose. Entries of nonnative plants and animals, especially those that are invasive, will not be considered. With the first 10 calendars, the CHNEP advised entrants if they had submitted images that would not be considered and allowed them to send in alternate entries. We are not able to continue this practice.
- Because the goal is to show diversity, entries of subjects other than birds have a better chance of being used. You may wish to review CHNEP's calendars to see what you can identify that hasn't been featured. In general, we have not received many entries of sea life, landscapes (especially of our estuaries), animals that live in the water, weather, plants (from fields of flowers to our majestic oaks) and people enjoying the environment.

Subscribe to Harbor Happenings to receive calendar.

he 2018 calendar is anticipated to be sent free to every person who is a CHNEP magazine Harbor Happenings subscriber by Sept. 15, 2017. If you submit entries or already receive the magazine, nothing additional is required. To subscribe, complete the request form at www.CHNEP.org/subscribe.html.

CHNEP 2018 Calendar Art-Photo Contest Entry Release Form

I certify that I am the artist/photographer of the work submitted and own all rights to this art. By submitting the artwork described below (1) I certify that I have the right to submit and/or publish such artwork (the submission of the artwork and entry form is the entrant's guarantee that she/he is the author and copyright holder of the art) and (2) I permit the CHNEP to publish the artwork in print or electronic format in a future calendar, issues of Harbor Happenings or related CHNEP materials and to use the artwork for advertising and promotional purposes without payment. By participating in the contest, I agree to release and hold harmless the CHNEP and its employees, officers, affiliates, agents and advertising and promotional agencies from any and all damages, injuries, claims, causes of actions or losses of any kind resulting from my participation in this contest, including infringement of intellectual property rights. The CHNEP and its employees, officers, affiliates, agents and advertising and promotional agencies assume no responsibility or liability for any damages, injuries, claims, causes of actions or losses of any kind arising in whole or in part from this contest.

Artist's Name (print):

Artist's Signature: _____



Anhinga on Florida Redbelly Cooter with Great Blue Heron, Bonita Springs | Maryle Barbé

If the artist is 18 or younger, then a parent/guardian must also sign this form.

Parent/Guardian's Name (print): ____

Parent/Guardian's Signature:

Email Address:

Area Code/Phone Number: _____/ _____

Where would you like the calendar(s) mailed? Please provide a street address recognized by the U.S. Postal Service (*www.usps.gov*) where you will be October–November 2017. If you use a post office, please provide the street address of the post office as well as the post office box number.

Street Address:

City, State ZIP: _____

How should the image(s) be credited if used in the calendar? Past examples have included the artist's name, organization name or business name. Please limit to 50 characters.

Please title the artwork to describe the subject and location captured in the image — for example, Bald Eagle on Lemon Bay. Please limit to 50 characters.

Image 1: Title of art:

Image 2: Title of art: _____

Image 3: Title of art: _____

The Animals whose Shells we Collect

We see shells as beautiful gifts from the sea, but appreciating them only as natural art represents just part of their story. Seashells are made by mollusks. These animals have no backbone, and they protect their soft bodies with exquisite external skeletons. Living mollusks eat, are eaten and are ecologically connected to the marine environment at every stage of their lives. Even at the end of their lives, mollusks contribute. Their shells house other animals and eventually break down into an important component of the sand that makes our beaches. Southwest Florida has hundreds of species of shellmaking mollusks, each fills a special niche. Their diversity is an indicator of the health of our waters.



More than just a pretty shell The horse conch eats other shelled mollusks. This largest snail in North America (to 24 inches) is Florida's official state shell.

What Is a Gastropod?

Most gastropods are snails with a single coiled shell, but some have an internal shell or none at all. These animals, including conchs, whelks and limpets, make up nearly 80 percent of all living mollusks. Some eat plants, others eat organic matter or scavenge dead animals, and some are predators of other shells and even fish.





 Veliger larvae (< 0.04 inches) hatch from eggs in about 3 days
 Metamorphosis into tiny juveniles in 18–24 days



Crown conchs live in shallow bays where they feed on oysters and clams. Larger shells lose their color and can grow to 5 inches.



Juveniles grow to adults in about 4 years

4 inches at 4–10 years 2-3 inches I sexes and reproduce by internal fertilization 2-3 inches I approximatel

dult

2-3 inches long, contains approximately 90,000 eggs



Variable coquina clams live in wave-washed sand. These bean-size bivalves are an important food source for fishes, crabs and shorebirds.



Sawtooth pen shells live in soft sediment out to 20 feet deep. They filter food particles from water drawn through the gap between their valves.



What Is a Bivalve?

Bivalve mollusks have two hinged shells called valves. Most are filter feeders that gather food clinging to their gills. Burrowing bivalves have a pointed, retractable "foot" that protrudes and retracts to pull the animal into the sand or mud. This diverse group of animals includes clams, mussels, oysters and scallops. An estimated 9,200 species inhabit virtually the entire world ocean.



Adult, 1.5-2.5 inches at 4-20 months

Calico scallops function as both male and female in the same individual. Sperm are released into the water first, followed by eggs.

O Sperm and egg Fertilized egg

Swimming and settling larval stages 2 weeks



Spat (juvenile scallops) settle on hard surfaces and detach in a few weeks

Mollusks Are Valuable

 Mollusks help maintain the balance of life on earth. They build reefs and provide living spaces for other animals. As an integral part of the food web, mollusks link primary production (photosynthesis) to diverse animal life, including game fish, birds and sea turtles.



- As food, jewelry, tools, decoration, spiritual objects and even pets, mollusks have been important to humans throughout history.
- In 2011 the Department of Commerce estimated the value of the commercial bivalve mollusk harvest in the U.S. to be approximately \$1 billion annually.

Threats to Mollusks

Without living mollusks, there would be no shells. Humans cause declines in mollusk populations, both directly and indirectly.

- Fertilizer use, septic drain fields and runoff from roads and other hardened surfaces all diminish water quality and α mollusk's ability to thrive.
- Canals for flood control bring drastic salinity changes that kill mollusks.
- Overharvesting for decoration and food can wipe out local populations.
- Dredging to deepen waterways removes mollusk habitat.
- Ocean acidification from atmospheric CO2 will increasingly harm all animals with shells, causing their growth to slow and survival to diminish.



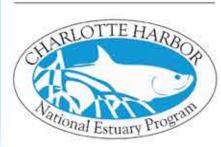
- Use nontoxic lotions at the beach.
- Support efforts to manage septic and rainwater runoff to reduce harmful effects.
- Check that shell! Leave living mollusks and hermit crabs in the water. In many places, harvest of any shell containing a live animal is not allowed. Leave plenty of shells for other animals and the lovers of nature who follow in your footsteps.



A thinstripe hermit crab in a crown conch shell

 Learn morel Visit the Bailey-Matthews National Shell Museum on Sanibel Island and www.CHNEP.org for videos, books and reports. "The simple understanding that maintaining the health and diversity of the simplest of creatures is important for maintaining our quality of life enables citizens to make responsible choices concerning the impacts of human development on natural systems."

-Jim Culter, Mote Marine Laboratory



A partnership working to protect the natural environment of Florida from Venice to Bonita Springs to Winter Haven.

www.CHNEP.org

Copyright © 2016 Dawn Witherington on behalf of the CHNEP



Thanks to Doug MacGregor for providing a different perspective of environmental issues in southwest Florida, including migrations of all things living!



Artist Dawn Witherington has created several amazing posters that have been included in Harbor Happenings. These posters have helped Harbor Happenings readers understand the wrack community, sea turtles, oysters, tarpon and more. The CHNEP commissioned Dawn to create four posters that explain the estuaries, the watershed and water flow in the Charlotte Harbor watershed and the animals whose shells we collect (included in this issue).

CHNEP posters help us understand value of the natural environment and serve as reminders of significance, beauty and wonder



Osprey nesting along the Peace River. Painting by Diane Pierce.

One of many reasons the CHNEP began creating calendars depicting the beauty of the natural environment while showcasing your talents is because many people asked for more posters from the CHNEP!

From the very beginning of the CHNEP, art has played an important role in the CHNEP's efforts to protect the natural environment of Florida from Venice to Bonita Springs to Winter Haven.

In 1998, the CHNEP commissioned Diane Pierce (see above) and Shelly Castle for two pieces of art that became two of its very popular posters. In 2001 and 2002, Clyde Butcher donated two of his black-and-white photographs.

In 2005, the CHNEP began producing calendars of donated images that show the beauty of the natural environment of southwest Florida. The featured 12"x9" images in the calendars are suitable for framing.

An 11"x17" poster has been included in most of the issues of Harbor Happenings since the winter 2007 issue. These posters have featured everything from mangroves to butterflies to clouds.

Thanks to those who have donated images, the CHNEP has been able to create centerfold posters on fire, alligators, monarchs, gopher tortoise, beach-nesting birds, butterflies and birds.

With the 2017 calendar, our poster collection has now expanded from 4 to more than 200 posters! Visit www.CHNEP.org/posters. html to download PDF files of the posters CHNEP has available and to learn how to obtain the others from the organization that had each created.

Tumblr: weekly reminders of amazing natural environment in southwest Florida, thanks to those who submitted images to CHNEP

Sign up to receive weekly messages from Tumblr on behalf of CHNEP featuring photos submitted to the CHNEP for its calendars. Each message includes an introduction to the landscape, plant or animal featured that week. It's easy. Go to www.tumblr.com, set up your account, search for CHNEP and select "follow." Special thanks to all who have submitted images over the years and to Kharli Rose for developing CHNEP's Tumblr messages. One example of a weekly message is provided below.



CHNEP Special Places in Southwest Florida

The CHNEP Special Places website is a listing of state, county and local parks, as well as other interesting public places to visit and enjoy the unique features of the southwest Florida environment. Find the website by searching "CHNEP Special Places" in your favorite Internet browser. Not only will you be able to locate a park, but you will also be able to view detailed information about the park's facilities, such as operating hours and availability of parking and restrooms. If you have a smartphone, you can download the CHNEP Special Places app and be able to find a kayak launch site on the Peace River and get

directions to the site if you are in Miami or New York City. The information for each of the more than 500 sites is reviewed and updated regularly. If you have comments about Special Places or wish to recommend a public site to be added, send an email to specialplaces@chnep.org. The QR code will take you to the CHNEP Special Places mobile app.



CHNEP Special Places

Q. Find address of place

Trom the Lake Wales Ridge to the Manual Contract of the Manual Contr

n Pine Island Sound, waters from the Charlotte Harbor, San Carlos Bay and the Caloosahatchee River mix with water from four passes to the Gulf of Mexico. The shorelines are rimmed with mangroves and other protective vegetation for the land and water. They can be nurseries for marine creatures and feeding stations for fish and wildlife. Photo provided by Glenn Pittard, 2008.

ONE DAY PASS

Entry into any Florida State Park Good for one vehicle, up to 8 people

Except at Ellie Schiller Homosassa Springs Wildlife State Park and Weeki Wachee Springs State Park, where the pass is good for two people. Does not include Skyway Fishing Pier State Park, camping or other fees.



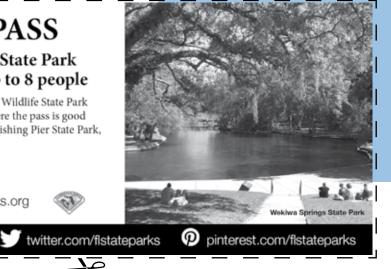
www.FloridaStateParks.org

facebook.com/flstateparks

CHNEP Harbor Happenings

Gulf of Mexico and throughout the watersheds of the Myakka, Peace and tidal Caloosahatchee rivers, there are many amazing naturalsantPete features and diverse habitats to behold.

- 500+ nature-based locations
- public access
- natural environments
- visitor education
- trails, nature centers, parks
- and much more





Get out and enjoy!

hanks to Florida Department of Environmental Protection for providing an admission pass into Florida's state parks. The coupon may not be reproduced.

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Triangle Ranch. Photo by Glenn Gardner

he 1,143-acre Triangle Ranch is perched at the top of the 110,000-acre assemblage of conservation lands known as the "Myakka Island." Triangle Ranch is traversed by about three miles of the Myakka River, just upstream of the portion of the river in Sarasota County designated "Wild and Scenic." More than 200 acres of the ranch are part of the 2,500-acre Tatum Sawgrass Marsh. This marsh is the least protected of the four large floodplain wetlands that are responsible for the water quality, flood protection and biodiversity of the Myakka River. More than 125 bird species are on the property, including federally and state-listed endangered, threatened and species of special concern, such as the wood stork, Audubon's crested caracara and Florida sandhill cranes. The Conservation Foundation of the Gulf Coast, a regional land conservancy, has worked for nearly three years to protect this working ranch and its special natural resources by raising funds from the Southwest Florida Water Management District (SWFWMD), various foundations and private individuals to purchase a conservation easement and place additional deed restrictions on the land. The SWFWMD will hold and monitor the perpetual conservation easement that will ensure the land remains in its natural and rural condition. The land will be owned by Triangle Ranch, LLC, which will continue ranching the land in accordance with a sustainable management plan that will enable restoration of the Tatum Sawgrass Marsh.

Supporting your local land trust is a wonderful way to protect native habitat in your own community. We have many outstanding local land trusts protecting and restoring native lands, including Calusa Land Trust, Conservancy of Southwest Florida, Conservation Foundation of the Gulf Coast, CREW Land and Water Trust, Green Horizon Land Trust, Lemon Bay Conservancy and Wildlands Conservation.

CHNEP grants support partners' efforts

he CHNEP offers Public Outreach Grants (up to \$5,000) once a year, with applications due the first Wednesday in September. Each year since 2002, the CHNEP has supported approximately 50 projects a year with micro-grants (usually up to \$250).

The CHNEP offers these grants to assist others in their efforts to help implement the CCMP, a plan to protect the natural environment from Venice to Bonita Springs to Winter Haven. Guidance and

he CHNEP is pleased to have awarded more than 850 grants for projects organized by our partners. Do you have an idea on how to protect the natural environment?

an online application form are at www.CHNEP.org/grants.html, as well as a listing of completed projects. While all projects help implement the CCMP, they are varied in their purpose and scope.

DIY: Environmental Responsibility Carol Mahler, Author

his morning as I trekked along the beach with other walkers, clean up pollution, the youngsters seem surprised. Of course, prejoggers, runners and shell seekers, I was delighted to watch two other people picking up trash as they strolled — not the natural detritus so necessary to the beach ecosystem, but the litter produced by humans. I am not employed to do this job, and I'm guessing that the other two people are not either. We do this service because we care about the natural environment and the disastrous effect of inappropriately discarded human-made objects.

My children — grown now and one with a child of her own cannot recall a time when we walked through Florida's natural lands without gathering trash along the way, except when the burden of it became too much for us to carry!

As the author of CHNEP's book Adventures in the Charlotte Harbor Watershed: A Story of Four Animals and Their Neighborhoods, I am often invited to speak to children and families. When I tell my listeners that only people cause pollution and people can vention is important. Most of them have been taught not to litter, but they have not been encouraged to retrieve the trash that others have deliberately or accidentally tossed or abandoned.

Almost everyone knows a story about a creature killed or made sick by the entanglement, entrapment or ingestion of humanmade substances. We can easily stop such tragedies. For those seeking exercise, bending down to collect litter as one walks or runs is a great body workout. For those observing nature, the sight of creatures and plants is greatly improved by removing trash from the scene.

The more people who routinely clean up the human-made trash in the environment, the less of it there will be for any one person to collect. I dream about the day when I will ramble through a city park, county recreation area, state forest or national seashore and return with only memories and photographs rather than a handful, or bag full, of trash.

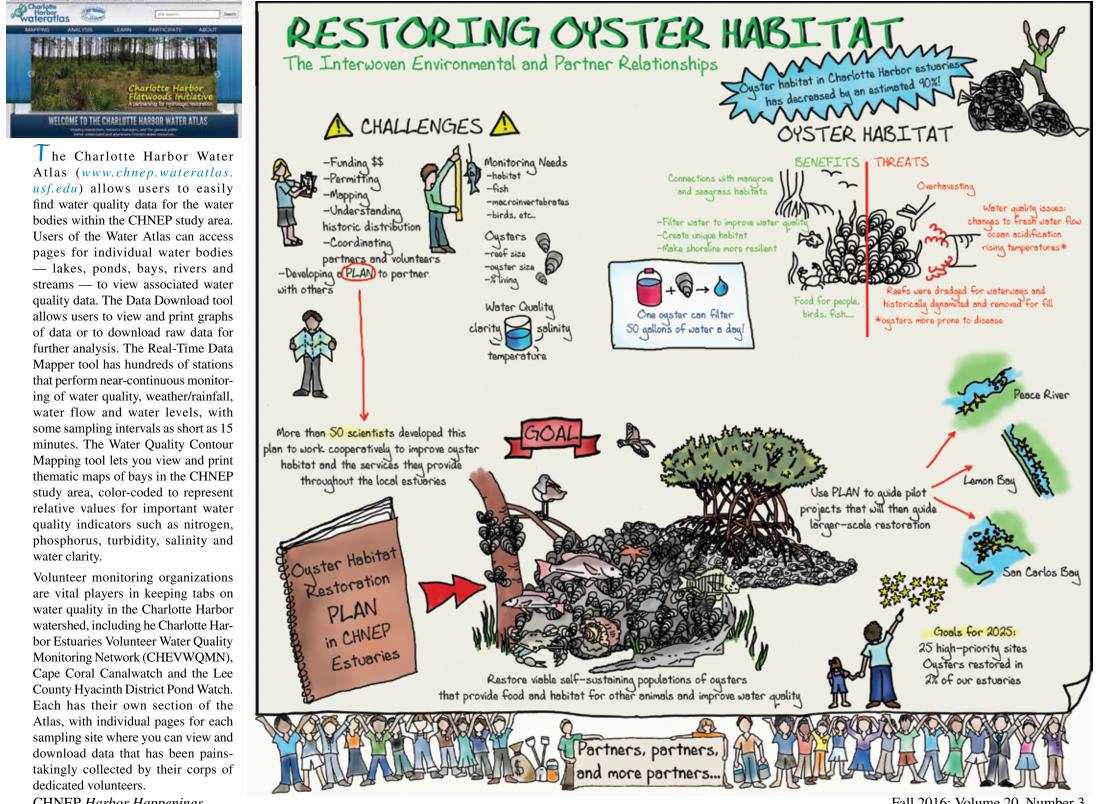
Florida Wildlife Federation honored the CHNEP as its 2016 Conservation Organization of the Year



he CHNEP published this 60-page book as a tool to help children better understand the natural environment of southwest Florida. Readers learn about the environment through the adventures of a yellow-crowned night-heron on the Caloosahatchee River, an alligator on the Peace River, an otter on the Myakka River and a mullet in the estuaries.

By engaging local schools and communities throughout the seven-county watershed, the CHNEP is focused on improving water quality in the estuaries while maintaining the integrity of the watershed as a whole. The program not only strengthens the land-water connection but is also building a multi-generational appreciation of the Charlotte Harbor estuarine watershed.

The Federation Wildlife Federation honored the CHNEP for its comprehensive and effective outreach programs to school children across the Charlotte Harbor watershed.



CHNEP Harbor Happenings

Fall 2016: Volume 20, Number 3



Wood Stork Gathering Dune Sunflower for its Nest | Sandy Cooper, sandycoopernaturephotos.com



June	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2017 CHARLOTTE HARBOR WATER ATLAS is a web- based tool (<i>www.chnep.</i> <i>wateratlas.usf.edu</i>) that provides	May 2017 S M F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	July 2017 S M T N F S S M W R S S M T N S 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 2 2 28 29		Jamaican Caper Flower, Boca Grande Rick Joyce, Forestry Resources Ecological, Inc.	1 (first quarter HURRICANE SEASON BEGINS	2	3
comprehensive and current water quality, hydrologic and ecologic data, information about local conservation efforts, volunteer and recreational opportunities, and a library of scientific and educational	4	5	6	7	8	9 Ofull moon	10

issues.							
	11	12	13	14	15	16	17 DLAST QUARTER
Lightning Whelk, Boca Grande Mike Herms Photography							
	18	19	20	21 SUMMER SOLSTICE	22	23	24 • NEW MOON
ARLOTTE HARBOR Vational Estuary Program	25	26	27	28	29	30	Castnet, Jug Creek in Bokeelia <i>Laura Coglan</i>

materials on water



Bobcat, Circle B Bar Reserve in Polk County | Lynette Spence





been captured today or 50 years ago.							
The entry form and additional guidance can be found throughout this calendar and at <i>www.CHNEP.org</i> .	9 OFULL MOON	10	11	12	13	14	15 DEADLINE TO SUBMIT IMAGES FOR 2018 CALENDAR
Hickory Horned Devil Caterpillar, Polk City <i>Tom Buckard, PACC</i>							
	16 ^D LAST QUARTER	17	18	19	20	21	22
Tarional Estuary Program	23 •NEW MOON 30 Girst QUARTER	24 31	25	26	27	28	29
UNARLOTTE HARBOR	30	/31	25	26	27	28	29



Fiddler Crabs | Liz Noffsinger, Noffi.smugmug.com



August	
2017	

Annet	<i>c</i>	11	Turnel	141- J J.	τ 11	τ	Catal
August	Sunday	Monday	Tuesday	Wednesday	~	Friday	Saturday
August 2017 The CHNEP sponsors and holds many activities through- out the year. These events recognize and honor the beauty of our estuaries and watersheds		Swamp Lily Cape Coral Friends of Wildlife	1	2	3	4	5
 and foster awareness, understanding and improved management. Two annual events focus on conservation lands and environmental education. Registration pages are on <i>www.EventBrite. com</i> — search for CHNEP but change the location to Florida. 	6	7 Offull moon	8	9	10	11	12
Mangrove Water Snake and White Mangrove Pneumatophores Marky Proch	13	14	15 DLAST QUARTER	16	17	18	19
	20	21 •New Moon	22	23	24	25	26
HARLOTTE HARBOR Vational Estuary Program	27	28	29 (first quarter	30	31	July 2017 S M T N F S 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 5 27 28 29	September 2017 S M T W R F S 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30



Six Mile Cypress Slough in Fort Myers | Linda Wroble of Schenectady, NY



September	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2017 DO MORE WITH CHNEP AND SUPPORT THE CHNEP FRIENDS. The CHNEP is pleased to pro- vide you with this calendar — and many other projects — to	August 2017 S M T W R F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	October 2017 S M T W R F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31			Juvenile Alligator, Six Mile Cypress Slough in Fort Myers J. McConnell, www. Naturephotosbyjohn.com	1	2
inspire you to do more to protect southwest Florida. Learn more about the issues that affect the natural environment of southwest Florida. Practice new ways that have less of an impact on the natural environment.	3	4 LABOR DAY CHNEP office is closed.	5	6 O _{full moon} Public Outreach Grant Deadline	7	8	9

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Become a citizen scientist who studies and documents your own environmental passions. Support the CHNEP with your time and the Friends of Charlotte Harbor Estuary with your financial gifts. Additional information can be found at www.CHNEP.org and www.CHNEPfriends.org. American Beautyberry Rick Fried, Greater Charlotte Harbor Sierra Club	10	11	12	13 DLAST QUARTER	14	15	16 COASTAL CLEANUP DAY
	17	18 WORLD WATER MONITORING DAY	19	20 • NEW MOON	21	22 AUTUMNAL EQUINOX	23
HARLOTTE HARBON Vational Estuary Program	24	25	26	27	28 ^C FIRST QUARTER	29	30 NATIONAL ESTUARIES DAY



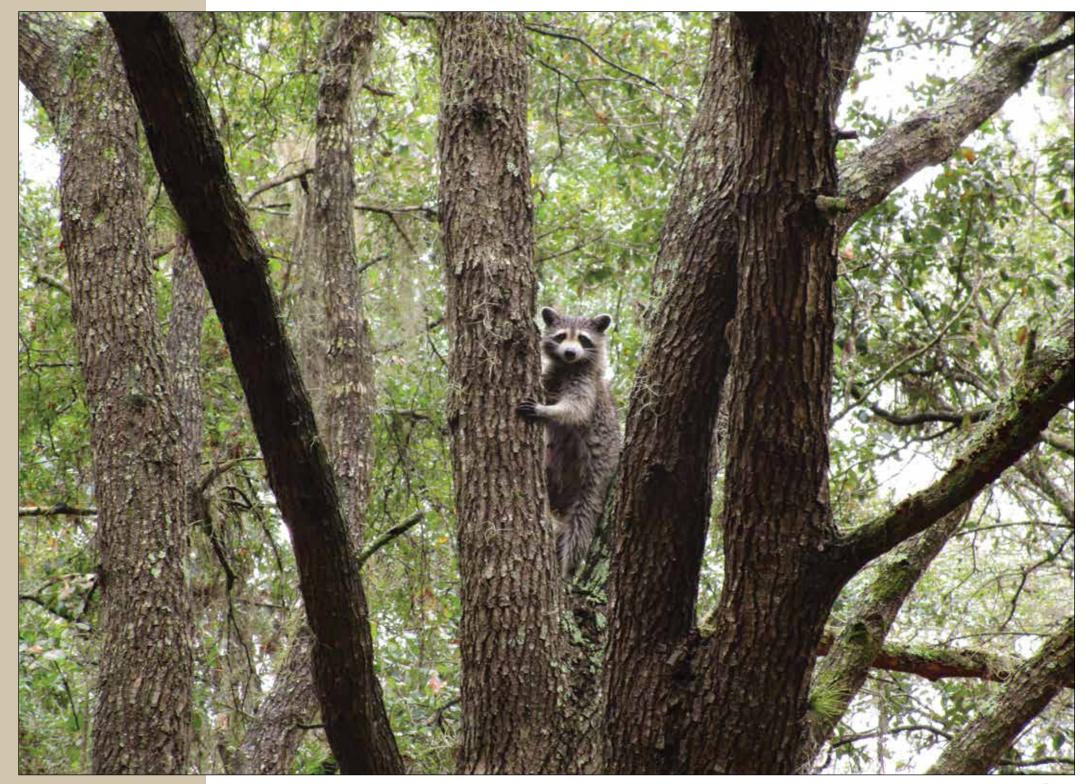
Great Southern White Butterfly, Panther Point Trail in Polk County | Lynette Spence



October	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2017	1	2	3	4	5 Of Full Moon	6	7
THE CHNEP VIDEOS help viewers better understand the natural environment and issues of concern from estuaries and watersheds, to boating and							
seagrasses, to how to make your lawn conservation-friendly, to the animals that live in the waters of our estuaries. All CHNEP videos can be viewed on YouTube (channel CHNEP 1995) or from the CHNEP	8	9 COLUMBUS DAY	10	11	12 CLAST QUARTER	13	14

website.

Website. Videos of presentations given at CHNEP events since 2012 are							
also available on YouTube.	15	16	17	18	19 • NEW MOON	20	21
Doe and Fawn, Myakka River State Park GaryWarren.WIX.com/photos							
	22	23	24	25 Black Skimmer, Amber Placida <i>Mary Lund</i>	26 jack Environmental Park in beberg, Nature Connections	27 ⁽ first quarter	28
CHARLOTTE HARBOR Tarional Estuary Program	29	30	31 SEA TURTLE SEASON ENDS			September 2017 S M T W R F S 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	November 2017 S M T W R F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30



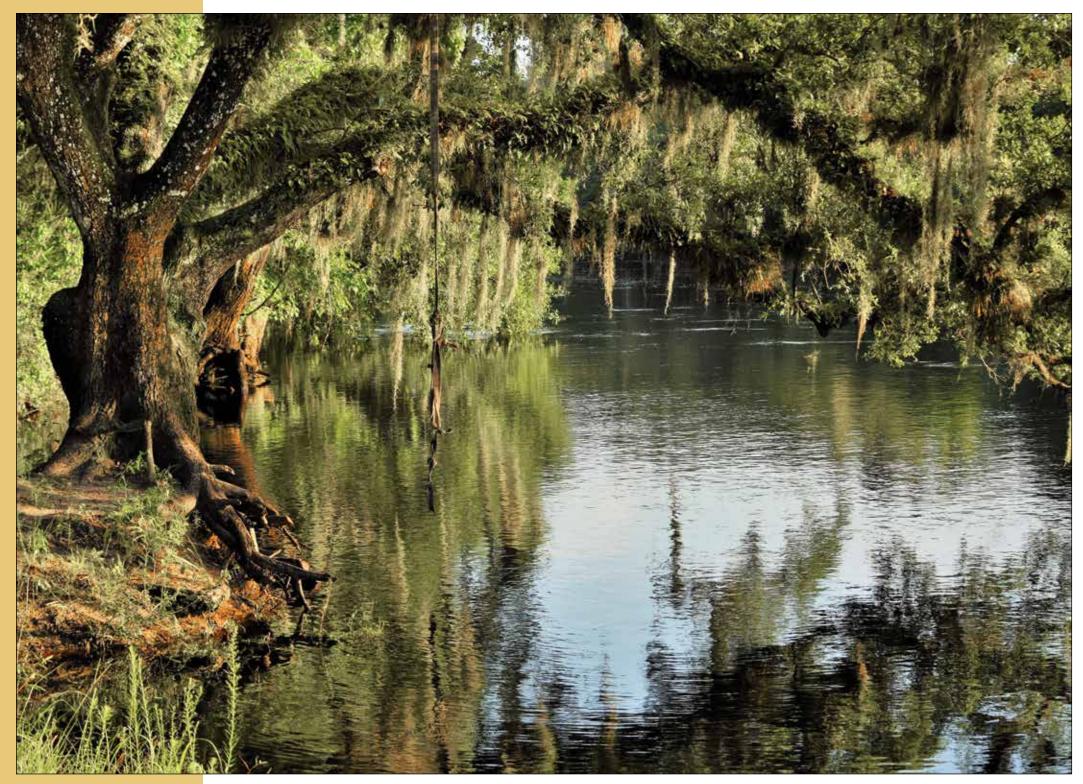
Raccoon in Oak Trees | Marky Proch



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November	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2017 CHARLOTTE HARBOR NATURE FESTIVAL Saturday, Nov. 18, 2017* 10 A.M. to 3 P.M. Charlotte Sports Park <i>Free Admission</i>	October 2017 S M T W R F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	December 2017 S M T W F S 1 1 2 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30		1 Iris facebook.com/ AndrewLilyquistPhotog- raphy/	2	3	4 OFULL MOON
Explore and learn about the beautiful natural environment of southwest Florida through 60 local environmental organizations, guided walks and wagon rides, children's	5 DAYLIGHT- SAVING TIME ENDS	6	7	8	9	10 DLAST QUARTER VETERANS DAY CHNEP office is closed.	11

activities and more. The festival

is coordinated by the CHNEP in partnership with volunteers who represent diverse organizations. * Confirm the date and location by visiting the CHNEP website.	12	13	14	15	16	17	18 CHARLOTTE HARBOR NATURE FESTIVAL
Fall Foliage, Babcock Ranch Preserve Malcolm J. Brenner, Eyes Open Media							
	19	20	21	22	23 THANKSGIVING CHNEP office is closed.	24 CHNEP office is closed. Little Blue Heron with Sh Wildlife Refuge <i>Piksum</i>	25 rimp, J. N. Ding Darling Blau
CHARLOTTE HARBOR Tational Estuary Program	26 ⁽ first quarter	27	28	29	30 HURRICANE SEASON ENDS		5



Peace River, Arcadia | Butch McDaniel



December	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2017 CHNEP CITIZENS ACADEMY CHNEP has created a free e-learning multimedia website to help citizens learn more about southwest Florida's	November 2017 S M T W R F S 1 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	January 2018 S M T W R F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31		Lake	le Baltimore Oriole, land <i>Steve Griffin</i> <i>ife Photography</i>	1	2
amazing natural environment, issues that challenge the health of the environment and solutions to help protect it. The Academy is self-paced and available on the learner's schedule. Learn more at <i>www</i> .	3 Ofull moon	4	5	6	7	8	9

CHNEP.org/CitizensAcademy.									
It's our goal that citizens will be empowered to be ambassadors, sharing their knowledge and passion with others and identifying issues and solutions to solve them.	10) LAST QUARTER	11		12	13	14	15	16
Sandhill Cranes, Harns Marsh in Lehigh Acres <i>Sue Christensen</i>									
	17		18	• NEW MOON	19	20	21 WINTER SOLSTICE	22	23
HARLOTTE HARBOR	24	31	25	CHRISTMAS CHNEP office is closed.	26 C FIRST QUARTER CHNEP office is closed.	27	28	29	30



Roseate Spoonbill Bathing, Little Estero Lagoon Eva Furner, FurnerPhotos.com



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18 19 20 21

Pelican, J. N. "Ding" Darling National Wildlife Refuge | Wendy Helton, photohoot@yahoo.com



April 2018 January 2018 February 2018 March 2018 Nesting White-Eyed Vireo at Circle B Bar Reserve in Polk County facebook.com/AndrewLilyquistPhotography/

2017 Year At-A-Glance

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October 2017

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January 2017

May 201

September 2017

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Great Blue Herons, Venice Audubon Rookery | Heather Bolyn-Becker

Great Egrets, Great Blue Herons and Wood Stork, Imperial Marsh in Lee County | Dick Brewer, CREW Land & Water Trust



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