



Bayou Foliage

APRIL ABNCV MEETING

Thursday April 10

6:30 Snacks & Conversation-Get better acquainted
7:00 Program: Pat Ireland on Fire Ants
8:00 Business Meeting
9:00 Adjourn
Greeters: Georgla Colyer & Chuck Snyder

Pat Ireland will discuss the introduction of fire ants into this country, eradication attempts, natural history, and their effect on plants and animals of the Texas Coastal Prairie.

Pat Ireland is a biology instructor at San Jacinto College and has studied fire ants for 2 years as part of her doctoral research at the UH Coastal Center. She comes from a family of naturalists and has been a life-time observer of plants, birds and insects.

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A publication of the Armand Bayou Nature Center Volunteers

"Interested + Informed + Involved"

APRIL CALENDAR

- Apr. 5 Stewardship Sat. (trail, forest & facilities)
- 5 Cockrell Butterfly Cont. Ed.
- 5 Outreach Cont. Ed. 10:00 - 11:00
- 6 Volunteer Board Meeting 4:00
- 10 Volunteer Meeting 6:30 - 9:00
- 12 Garden Tour
- 15 Bayou Foliage Inputs Due
- 16-20 Earth Week
- 19 Stewardship Sat. (prairie & marsh)
- 26 Volunteer Picnic & Celebration of the opening of the Visitor's Pavillion

FEBRUARY VOLUNTEER OF THE MONTH

The Volunteer of the Month for February is Jim Yaeger. Jim became a volunteer in September of 1995 because he felt he wanted to do something to help in the community. "I saw an advertisement on the bulletin board at Shell, where I work, for stewardship volunteers, and I went from there," he says. He does work primarily on stewardship projects including marsh restoration, trail maintenance, tallow tree removal and construction, but has branched out into other areas also. His portrayal of a rabbit at our Halloween event, Creepy Crawlers, was a huge hit. He roasted inside a full suit costume for both evenings while interacting with our young visitors. He says he likes being a volunteer because "you get to meet new people and you have an opportunity to learn everything from ecology to how to build a boardwalk. I get a feeling of satisfaction helping the nature center."

Thanks, Jim. We're glad you saw that advertisement!

CLEVER CUPS

In order to be more environmentally sensitive let's all try to remember to bring our own cups to each meeting so we don't have to use disposable cups. At the April meeting we'll let those who wish, enter their cup in a contest. The volunteers attending the meeting will vote on the one they feel is the most clever. So look in the back of your kitchen cabinets for those cups you thought were destined for the garage sale and bring the wildest one you can find.

Mary Alice

APRIL BIRTHDAYS

Herman Burton	4/01	Chuck Snyder	4/04
Chris Watenpool	4/06	Dick Benoit	4/06
Patty Gill	4/07	Charles Ferguson	4/07
Robert Oller	4/10	Charlotte Teeter	4/12
Susan DeFrank	4/12	Marion Rotramel	4/12
Paul Shack	4/13	Joan Shack	4/13
Susan Howe	4/15	Jim Hawkins	4/16
John Siptak	4/19	Curtis Crosswhite	4/25
Judy Mayes	4/27	Marlene Ladner	4/28

Thank you Hoechst Celanese for providing printing of the Bayou Foliage

MINUTES OF THE ABNCV MEETING THURSDAY, MARCH 13, 1997

Vice Chair Becky Brignac called the meeting to order and introduced the guest speaker, Frank Pearce, who spoke on the use of weather radar in the tracking and counting of hawks during their fall migration. Hundreds of thousands of the birds leave the United States for Mexico and Brazil each fall. The counts made using the radar are amazingly close to the counts made by visual sightings.

Mr. Pearce's talk was followed by a brief break and then the business meeting. Georgia Colyer announced that Donna Chism had won the get-acquainted contest. More such activities are planned for future meetings, and it is hoped that, as a result, the volunteers will get to know one another better and that retention will be improved. Becky said that Paul and Stephanie Rogers will celebrate their 50th anniversary on March 15 and thanked Kathy Sosa and Donna Chism for setting up the chairs in the auditorium for the meeting. Next, the minutes of the February meeting were approved as published as in the Bayou Follage. The Treasurer's report was published in the meeting agenda: \$589.12 in savings and \$2,586.25 in the checking account.

The graduation ceremony for the new volunteers was conducted by Mary Alice Trumble. Next, Mary Alice announced the Volunteer of the Month, Jim Yaeger. In the Staff Report, Mary Alice announced that help is needed for Girl Scout workshops and with donations of supplies for Earth Day. She then read a letter from Lynn Shigekawa in which Lynn urged the volunteers to participate in Bayou Boil in May. Other announcements included:

- * a reminder to pick up items in the volunteer box in the break room
- * the date of the Volunteer Picnic, April 26
- * ideas from the Volunteer Retention Committee to recognize the efforts of new volunteers and their mentors
- * the work being done in the Heiman House and the hope that it will be more useful when the work is complete

Becky urged those present to sign up for continuing education classes and thanked Eleanor Stanley and Donna Chism for bringing the refreshments. Mary Alice said that the volunteer logbook is being moved to the breakroom. Melanie Weisman told of plans for the upcoming ladies' camp out, and Michael Vu explained the purpose of the Outreach Program and urged everyone interested to attend the April 5 training class he will conduct. Eleanor announced that May 3 is the day for farm demo training.

The Stewardship report followed and was given by Jim Hawkins. He reported that ABNC had been given permission to burn black lines on the prairie, and that this will be very beneficial. He also reported on the acquisition of plant relocation facilities, tallow whacking, a new marsh restoration site, an upcoming prairie burn, and a potluck lunch for stewardship workers.

Becky asked everyone interested in working during Earth Week to contact Colin Shackelford and of the need for help with the planned Telephone Committee. Mary Ann Tucker reported on details of the Garden Tour, which will be on April 12. Paula Kennedy asked for help with the preparation of 18,000 Eco Camp brochures which need to be prepared for distribution to students in the area.

Susan Williams, Secretary

COMMENTS FROM THE CHAIR

One of the objectives of ABNC is to "Provide appropriate and planned stewardship management for the land under the nature center's protection." One of the ways ABNC meets this objective is marsh restoration. Marsh restoration is not in the 2500 acres of land in Armand Bayou Nature Center. All land under water is owned by the State of Texas and managed by the Texas General Land Office. The Texas General Land Office and Texas Parks and Wildlife have identified four critical areas of the coast of Texas and titled them Coastal Preserves. Armand Bayou is one of these four areas. Armand Bayou Nature Center co-manages Armand Bayou with these two agencies.

Historically Armand Bayou was a very rich wetland area. Originally Armand Bayou had over 300 acres of wetlands in its watershed. Between 1956 and 1979 92% of the wetlands disappeared. This massive loss was due primarily to subsidence. Subsidence is a man made occurrence caused by pumping too much underground well water. Many areas of Armand Bayou sank between four and six feet. This depth increase drowned out the above mentioned wetlands creating water too deep for their survival. Subsidence is now measured in the hundredths of an inch due to our nearly exclusive usage of surface water.

Our restoration efforts focus on restoring these now absent marshes. Elements of the restoration process include site identification, fencing, re-vegetating, and monitoring. Site selection is done by consulting aerial photographs from the 1950s clearly depicting areas that were historically marsh. A visit to these sites determines if their water depth and bottom conditions are favorable. Once a site has been dedicated, a fence is built around the restoration area. This fence protects the young transplanted marsh grasses from grazing animals such as rabbit and nutria, and it protects the young plants from invasive floating plants like water hyacinth, and finally the fence helps to diminish wave energy. Large waves create turbulence which is a very inhospitable environment for the young marsh grasses to take root. After the fence is complete the area is planted with marsh grasses such as smooth cord grass, bullrush, and scirpus. The site is monitored on a monthly basis to ensure success.

Marsh lands are very important to birds and fish, to erosion prevention efforts, and for water purification. We have two successful sites that are currently under restoration and we will be taking on a new site in April. The third Saturday of every month is Marsh Restoration, Prairie Restoration and Tallow Whacking Day. So, if you are interested in these projects come on out then.

Thanks to Mark Kramer for the information for this article.

Helen

WELCOME, NEW VOLUNTEERS

We are happy to announce the addition of 22 new volunteers who recently completed training and were graduated at the March volunteer meeting. Please go out of your way to make them feel welcome and give them any help you can.

Welcome to Becky Appleby, Kathy Appleby, Dick Benoit, Jen Bingel, Patsy Cashion, Donna Chism, Bre Dorsett, Ruth Elder, Dottie Evans, Marsha Galvan, Marsha Goss, Travis Lovelace, Sue Manley, Dewanna Norrils, Ken Russell, Deanna Sanchez, Karen Smith, Matt Snyder, Kathy Sosa, Dick Wettling and Jim Wilson. Jim Crabb also went through the entire volunteer training (both weekday and weekend) to refresh.

TRAINING HELPERS

We have completed another successful volunteer training which we could not have done without the help of many people. First of all, thanks to Chris LaChance, Becky Brignac, Helen and Herman Burton and Lou Wheatcraft for assisting with volunteer orientation. Then kudos go to Georgia Colyer, Susan Williams, Helen Burton, Susan Hesley and Jean Kruse who brought refreshments and welcomed volunteers on the first day of training. Then a huge thank you to Dennis Jones who graciously consented to teach both forest and prairie ecology. Lou Wheatcraft led our new volunteers on both a guided trail and farm hike; Ann Brinly did the interpretation on the *Bayou Ranger*, taught Hands-On-History, Farm Life, Insects and Reptiles; staff member Patrick Hayes drove the boat for bayou ecology; our "fearless leader," George Regmund taught pond ecology; volunteer Sterling Heller showed us how to handle reptiles; Jane Bingel did a special demo and taught Hands-On-History; Paul and Stephanía Rogers and Ed Adams also taught Hands-On-History; and Mark Kramer finished the training for weekend volunteers with stewardship training. A huge thank you to all these people who contributed many hours to the training of our new volunteers.

Mary Alice Trumble

CONTINUING EDUCATION

**COCKRELL BUTTERFLY CENTER
HORTICULTURIST & ENTOMOLOGIST
Saturday, April 5, 1997
10:00 - 12:00 Auditorium**

NOTE: Minimum of 20 people - firm. If minimum is not met 1 week prior to class this class will be canceled. You must notify Mary Alice or myself if you cannot show for this class.

They will discuss how to butterfly garden with native plants and use organic pest control. They will have plant lists, nectar sources and other beneficial handouts.

**HOW TO GIVE OUTREACH PROGRAMS
Saturday, April 5, 1997
10:00-11:00 Pole Barn or Auditorium
Instructor: Michael Vu**

Spring is around the corner and outreach program requests will be at its peak. This continuing education class will give old and new volunteers who have never been part of the outreach program but would like to, the opportunity to learn about all the different activities we do, to talk to seasoned volunteers and receive advise.

**LEARNING FARM DEMONSTRATIONS
Saturday, May 3, 1997
9:30-12:00 Farm
Instructors: Eleanor Stanley and Jane Bingel and other volunteers**

This continuing education class is for all volunteers, new and veteran, who want to learn or re-learn farm demos such as cheese making, butter making, rope making, wash day, and black smithing.

**SPIDERS
Sunday, May 4, 1997
7:00-9:00 pm Auditorium/Outside
Instructor: Maggie Honig, a science teacher
flashlights required**

Not all mom spiders eat their babies, some are actually good mothers. We will learn how babies leave the nest, spring mating fever of local spiders, food, camouflage, silk webs. Also learn to distinguish the more common groups of spiders and how to identify local residents. If you missed her last year, don't miss her this year!!

THANKS!!!

A great big thanks to Lynn, George, Mary Allce, Mark and Patrick for assistance with the native plant folks and helping set up everything for the "Wildscapes" program. It would not have been successful without your help. Ya'll are great.

Becky Brignac

LET'S GET CREATIVE

Beginning with the February 1997 volunteer class we will be giving an award for the most active new volunteer and for the best mentor. We are having a contest to name both awards. We would like for each to be something indicative of ABNC and also be an acronym. For example, T.R.E.E. award or A.R.M.A.D.I.L.L.O. award and have each letter describe the award. The new volunteer award name will be chosen by the Volunteer Retention Committee from the entries received. New volunteers who feel their mentor has been outstanding may nominate them and the winner will be selected by the Volunteer Retention Committee. So put on your creative bonnets and come up with a named award any volunteer would be proud to receive. The deadline for the contest is May 1st.

ORGANIZED TEACHERS AND DEMO VOLUNTEERS

Many thanks to volunteers Ann Brinly, Jane Bingel and Anne Tincher who have ONCE AGAIN organized the Insect and Adaptations boxes used for classes during the week. Everything in the Insects boxes is labeled with its box number. Please make sure that each item is returned to the proper box. Each of the boxes contains the same materials, so there is no need to move things from box to box. If any demo people use the boxes on the weekend we also ask that you are careful to put each item back in its original box. Thanks again, ladies for all your work and we hope it won't have to be done again—at least, not for awhile.

Mary Alice

HOUSTON HOME AND GARDEN SHOW TRAVEL AND LEISURE AND COMPUTER SHOW

Wow, over thirty volunteers were willing to trek to the George Brown Convention Center to be greeters and spread the word about Armand Bayou Nature Center. In addition, Helen Harger and Ed Adams are becoming number one schleppers when it comes to loading

vehicles with six foot tables, chairs, carpet and all the stuff necessary to look good at the G. B. C. Then there is Jane Bingel, who always comes through, like when I forgot to check "THE LIST" and forgot the most vital item of all...the beautiful new sign board. So, thanks to all of you. Please, however, give some feed back. Is it worth while, would you do it again, what else would you like to see at our booth??? Next year the show is scheduled for March 20, 21, 22. Mark your calendar, I'll be calling you.

Barb Hill

GARDEN TOUR

O.K. I've told you all how wonderful you are...now that you are putty in my hand...

How about giving the garden tour a few hours of your time on Saturday, April 12??

It's fun, you can meet other volunteers, and you may learn something interesting about gardening along the way. This is an invitation for all, but especially our new volunteers just bursting with enthusiasm to help us out. Please call Mary Ann Tucker 488-0796 or Barb Hill 488-2653.

THANKS

Thank you, thank you everyone! All your calls, notes and overwhelming evidence of concern has been just the tonic I need to start back on the road to recovery. Positive vibes really go a long way in healing the body, mind and spirit.

Love to all, Barb Hill

MORE THANKS

Thank you to all who have been so very helpful during my current acute back trouble.

Couldn't have made it without you? Including 4 or 5 transportation trips to the Medical Center and beyond; grocery and other necessary shopping; and for the spirit, gifts of flowering plants, cards and telephone calls.

In addition to everything else that she does at the center, Archangle Mary Ann Tucker is mailing the *Bayou Foliage* for me again. Hopefully I'll be "back in the saddle" again.

I am truly grateful and blessed with such wonderful friends!

Lovingly, Wanda Hayden

STEWARDSHIP NEWS

Last month I introduced the adoption of a project book for the volunteers to use to bring problems and requests to the attention of stewardship. Though I still have some work to do to bring the book up to date, folks can still enter their new ideas in the Idea binder that is at the front desk. Everyone should be aware that Mary Alice announced at the volunteer meeting, this month, that the Hours Log Book, Continuing Education and Project Idea Books would be moved to the break room. The move is a result of the long anticipated opening and occupation of the Kaneka Building. In fact there have been a couple of ideas entered already. Don't expect or wait for someone else to find and take care of a problem, please write it up in the book. We need to continue to create a good appearance to the public.

February was a very busy month for stewardship. We finished the connecting boardwalk at the Kaneka Building with the help of the Shell Volunteers. Thanks to everyone who slogged in the mud to install the boardwalk. We have a couple of things left undone that we'll be working on in the coming weeks. You may have noticed the work going on in the Heiman House. We have a contractor completing that facility which will be used for classroom space.

Stewardship has finished, except for the gate area, the armadillo barrier around the farm house. It works so well the armadillo now can't get out. Come to find out his burrow in under the house.

The April stewardship Saturday activities will focus on the following:

Forest / Trail - Farm / Facilities

- 4/5 Finish implement shed extension.
Install gate on porch at Kaneka Bldg.
Adjust entrance fencing - Close off the present entrance.
Start rebuilding trail bridges.
Reset the bird house pole at the farm yard.

Prairie - Wetlands / Bayou

- 4/19 Burn black lines (fire breaks) on the prairie.
Tallow control .
Cyclone fence gate repair.
Planting marsh grasses.

The May stewardship Saturday activities will focus on the following:

Forest / Trail - Farm / Facilities

- 5/3 Start the second implement shed extension.
Plant the sugar cane.
Install new site electrical setups.
Tallow control.

Prairie - Wetlands / Bayou

- 5/17 Burn black lines (fire breaks) on the prairie.
Tallow control .
Cyclone fence gate repair.
Planting marsh grasses.

Questions, comments or suggestions are always entertained. Let's talk.

Jim Hawkins

OUR MOMENT OF CONTEMPLATION

by Jonathan Perez

All of us know that there are currently nine known planets. This is the list of the planets starting with the planet closest to the Sun and ending with the farthest. Also, the distance is given following each planet in AU (astronomical units.) Remember that 1 AU \approx 93 million miles or ~150 million km, the average Earth-Sun distance. Also remember that light takes approximately 8.32 light minutes to travel the distance from the Sun to Earth, so the light that reaches us is always 8 minutes old! Mercury (0.39), Venus (0.72), Earth (1.00), Mars (1.52), Jupiter (5.20), Saturn (9.54), Uranus (19.18), Neptune (30.06), and Pluto (39.44).

The four planets closest to the Sun are called the terrestrial or inner planets; usually our moon is included in this group. Rock/silicates and metal make up the majority of these planets. Mercury has the highest density of metal while our moon has the lowest. Having a combination of a liquid metal core and a rapid rotation, like the Earth, leads to the generation of an internal magnetic field. Of course, this is just a theory. Mercury has a magnetic field but is thought to have a solid core. Venus rotates too slowly to have a magnetic field and the moon and Mars have little or no magnetic field.

Mercury is one of the brightest objects in the sky, but it is often hidden by the brilliance of the sun. Mercury has the shortest period of revolution (88 of our days) and the highest average orbital speed (48 km/s.) It has no satellite. It is believed that the interior is an iron-nickel core with a mass making up approximately 60 percent of the total, with the rest of the planet made up of primarily silicates. A good way to think of Mercury is by picturing a metal ball, about the size of our moon, surrounded with a rocky crust 700 km thick. Mercury has no atmosphere but has a magnetic field. The daylight surface temperature ranges up to about 700 K at noontime (if you remember back to article number 1, water freezes at 273 K and boils at 373 K. 700 K is nearly hot enough to melt lead!) Around sunset, the temperature drops quickly to about 150 K, then slowly cools to 100 K just before dawn. The range in temperature is greater on Mercury than on any other planet.

Venus is the hottest planet in the solar system but it is most like the Earth in mass and size. Venus comes closer to the Earth than any other planet. At its closest, it is a mere 40 million km away. Venus goes through phases much like our moon and is at its greatest brilliance when it is a crescent. This planet is strange in its rotation behavior. It appears that Venus has a rotation period of approximately 243.08 days retrograde. This means that Venus rotates from west to east, the reverse direction from the rotation of most other planets. The revolution period is 115.67 days. Venus is alive with respect to its geology. It is both volcanically and tectonically active. The surface of this planet has many craters and lowland lava plains. The atmosphere of Venus is thick, consisting mainly of carbon dioxide (96 percent,) while nitrogen makes up about 3.5 percent. The temperature at the cloud tops is about 250 K, but the surface temp. is an astonishing 700 K. Venus has an extremely hot surface, but is not emitting more heat than it receives from the sun. Rather, this increase in temperature is accounted for by the greenhouse effect. Venus has what is called a runaway greenhouse effect, where the atmospheric CO₂ and water vapor continue to rise while the surface temp. rises until a new equilibrium is reached. Water once was present on Venus, but atmospheric H₂O dissociated when it came into contact with solar ultraviolet light.

The Earth is home to us all. It is a terrestrial planet, composed mainly of rock and metal, with a crust, mantle, and an inner and outer core. The outer core is liquid iron and it's so hot that it is no more viscous than water, while the inner core is solid and recent research has proved that the inner core is rotating faster than the rest of the planet. The total mass of the Earth's atmosphere is about 5×10^{15} tons, or about one-millionth the total mass of the Earth. At higher altitudes, the air thins out until it disappears into the extremely sparse gases of the magnetosphere (an altitude of several hundred kilometers.) When ions and electrons from the magnetosphere bombard the upper air, it creates the phenomenon called the aurora or polar lights. The Earth's rotation period is 23h 56m and its axis is tilted at a 23.5° angle, the reason for the Earth's seasons.

The Earth's satellite, the moon, is only about 1/80 the total mass of the Earth (remember that the Earth's mass is $\sim 5.98 \times 10^{24}$ kg) and has no atmosphere. The surface gravity is too low for the moon to retain an atmosphere. There have been nine manned spacecrafts sent to the moon between 1968 and 1972, landing 12 astronauts on its surface. The first astronauts who landed on the moon, landed on Mare Tranquillitatis in 1969.

The moon differs from the Earth in being depleted of metals (mainly iron) and has no sign of water and other volatiles. It lacks a global magnetic field, consistent with the absence of a metal core. Much of the crust of the moon (~83%) is heavily cratered and consists of relatively light-colored silicate rocks (anorthosites.) Because this area makes up the majority of the moon and because its elevation is slightly higher than the rest, it is known simply as the lunar highlands. The highlands are the oldest surviving part of the lunar crust. The dark

areas a person sees when one looks at the moon are called maria. They are much less cratered and are a dark plain covering just about 17 volcanic plains laid down billions of years ago by abundant eruptions of dark lava.

Mars is the planet most like the Earth because it has experienced a geological history similar to ours, has abundant supplies of water, etc. The rotation period of Mars is 24.6 hours and its revolution period is 1.88 years. Thus, approximately once every 26 months, Mars is at opposition. The planet is distinctly red, due to the presence of iron oxides in its soil. The rotational pole is tilted at a 25° angle. Because of this tilt, Mars experiences seasons like we do, each lasting approximately six of our months. Large, extensive polar caps of water or carbon dioxide ice form at each pole during the winter but largely evaporate during the spring and summer. Mars is larger than either the moon or Mercury but smaller than the Earth. It is able to retain a thin atmosphere of mainly CO₂, but its pressure is less than one percent that of Earth. The god of war, Mars, has two companions (satellites) appropriately named Phobos (meaning fear) and Deimos (meaning panic.) These two satellites are thought to be captured asteroids.

Other members of the planetary system include comets, asteroids, meteors and meteorites. Comets will be discussed in the following article. Asteroids are rocky objects located primarily between the orbits of Mars and Jupiter, in the asteroid belt. They are rarely if ever spectacular, being visible only through a telescope. While a person wishes upon a star, staring into the night sky, you may see a very brief flash of light and perhaps a luminous vapor that persists for a few seconds before disappearing into the invisible. This "falling star" or "shooting star" is really called a meteor. Fragments of interplanetary debris in space are called a meteoroid. If a piece of a meteor or meteoroid should survive it's plunged into a planet's atmosphere and land safely on the surface, then we call it a meteorite. Meteorites are fragments of larger parent bodies. Meteorites are broadly classified into three classes: the irons, the stones and the stony-irons. The largest meteorite ever found on the Earth was in Namibia, weighing about 60 tons and a volume of about 7m³. The largest meteorite ever found in a single piece in the US was in Oregon in 1902, having a mass of about 13 tons.

Well, I hope everyone has enjoyed briefly reading about our planetary system. Comments, questions, suggestions of topics, etc. are always welcome!

SUPER VOLUNTEERS

In the first two months of 1997 we had 90 volunteers log 1372 hours! Are your hours being counted?

VOLUNTEER APPRECIATION PLAQUE

PROPOSED 1997 ABNCV BUDGET

INCOME:

Cookbook Sales	\$100.00
Cookie Sales	600.00
Savings Acc't Interest	13.00
Paper Recycling	200.00
	<u>\$913.00</u>

EXPENDITURES:

Contribution to ABNC (includes carryover from 96)	\$1275.00
Administration/Supplies	50.00
Entertainment/Refreshments	50.00
Contingency	30.00
Cards, Gifts, Flowers	25.00
Memorial Funds	407.25
Postage	<u>350.00</u>
	<u>\$2187.25</u>

Thank you! Carol MacGregor

VOLUNTEER MENTORS

Our new volunteer mentor program is up and running, and everyone seems enthusiastic about it. Thanks to Ed Adams, Mary Barton, Shirley Bishop, Ann Brinly, Jim Callan, Joe Clem, Fran Cognata, Carl Cognata, Georgla Colyer, Hanna Drago, Charles Ferguson, Marie Ferguson, Jean Kruse, Chris LaChance, Cris Santiago, Paul Shack, Chuck Snyder, Mary Ann Tucker, Melanie Wiseman, Lou Wheatcraft, and Susan Williams for helping with this program.

APRIL VOLUNTEER PICNIC AND CELEBRATION OF THE OPENING OF THE VISITOR'S PAVILION

On April 26 at 5:30 we will have a celebration of the opening of the Kaneka Visitor's Pavilion and a pot luck picnic. We had planned the picnic months ago, and it seems a wonderful time to celebrate all the dedication and hard work that went into the wonderful new building.

We also thought it would be a good time for a volunteer class reunion for the 1995 and 1996 volunteer classes and the February 1997 class. We'll have contests and prizes - how about tug of war or a sack race? So come on out with a pot luck dish and your own plate, utensils and drinks and let's have a wonderful time. Bring any games you think would be fun - badminton, croquet etc. Canoes will be available for those who like to canoe.

There will be a volunteer appreciation plaque in the new Visitor's Pavilion to honor all our wonderful volunteers. We will honor volunteer of the month, volunteers of the year, and volunteers by hours and by number of years of service. We have made every effort to be sure that the information is accurate. If you notice a mistake please let Helen Burton know so it can be corrected.

WE NEED YOUR TRASH

For Earth Day children's crafts, please save your empty toilet paper and paper towel spools, 6-pack rings (uncut), paper egg cartons and empty frozen juice cans (with bottoms.) Please place them in the container in Mark and Mary Alice's office. Thanks.

Mary Alice

BAYOU BOIL IS BEGINNING TO BUBBLE

Many of you were involved in Bayou Boil last year (our annual fund-raiser) and contributed a great deal to the success of the event. We are working to improve the evening by repeating the successful aspects and changing those that could use improvement.

Several of the volunteers created or offered special items for the silent auction and they were very well received. We had wonderful contributions from you such as a canoe trip, bird houses, painted watering cans and many other wonderful things that were very well received. Please call me if you would like to contribute something to the auction and we can talk about your unique creation.

Another way that volunteers have contributed is by working the evening event. We are looking for people who like to interact with the public and encourage them to spend their money at the auction (you may feel more comfortable working in teams and this will be fine for some of the jobs.) When we get closer to the event, I will have better job descriptions, but I would be happy to talk with you on the phone about your interests. You can call me direct Monday through Friday at 474-3748.

Thank you for your very special support!

Lynn Shigekawa
Development Director

THANKS

I want to thank all you volunteers and staff who have been sending your support my way. You have found a variety of ways to provide encouragement, and I appreciate them all very much. As I make my journey to recovery, it is so helpful to have your company. Thanks, everybody, for "riding with me".

Pat Doerr

Environmental Notebook

Wetlands Revisited by Lou Wheatcraft

After I submitted last month's article on wetlands, I attended a talk by Casey Cutler from the Army Corps of Engineers. He clarified several points about wetlands, the law, and the Corps. Because of this, I need to revisit some key wetlands issues: Use of the word "protection", the draining of wetlands, and "no net loss of wetlands."

As far as the Clean Water Act (CWA) is concerned, the term "protection" is solely based on water quality. I.e., "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" - "the degradation or destruction of which could affect interstate commerce." The inclusion of wetlands was found by the courts to be "reasonable, given the role which wetlands play in drainage, purification, flood control, and erosion prevention, all of which benefit navigable waters." Notice there is no mention nor intent to protect wildlife habitat!! The permit program adopted by CWA does not prevent pollution nor prevent disposing dredge or fill material into wetlands - It only requires that you get a permit first! Locally, the Corps of Engineers have denied less than 1% of the permits, nationwide the number is around 3%! (In fairness, the permit process does serve as a deterrent to destruction of wetlands discouraging projects that could have "unacceptable adverse effects" on wetlands.)

Remember that in the last article I pointed out that section 404 of the CWA does not prevent draining of wetlands. The attempt by the Clinton administration to close that loophole that I discussed was called the "Tullock Rule."

The third topic is the "no net loss of wetlands" policy. Remember I said that in 1989, the Corps and EPA entered into a memorandum of understanding which the Corps agreed to exercise its authority to review section 404 permit applications so as to minimize any loss of wetlands. This memorandum is the basis for what became known as the "no net loss of wetlands" policy. This sounds nice but in practice there is no way to carry out and enforce this policy because of two reasons.

First, there are general permits that allow small plots of wetlands to be filled up without individual permit reviews by the Corps. Nationwide Permit 26 allows expedited permits for filling up to 10 acres of "isolated" wetlands. For less than one acre, the Corps doesn't

even need to be notified! Because of this the Corps doesn't have a good idea how much of the Nation's wetlands are being destroyed. These small areas of destruction can add up - resulting in significant cumulative losses of wetlands.

In fiscal 1996, the Galveston district received 56 notifications under the provision for projects in its entire region that involved filling one to 10 acres of wetlands. The agency has no records for projects affecting under one acre. Of the 56 notifications, 47 projects received Corps authorization. They averaged 3.2 acres filled per project, and the agency required that an average of 5.2 acres of compensation wetlands be created per project. This is called mitigation.

This brings up my second point. Not all mitigated wetlands are created equal from a "quality" standpoint. The concept of using mitigation to help ensure "no net loss of wetlands" reflects a notion that is discredited by some environmental scientists, the notion that science can create wetlands in "more convenient" locations to serve the same purposes as those being destroyed. As a U.S. Fish and Wildlife official put it, "Trying to recreate a wetland is like taking a vein in your arm and moving it to where there is not a vein. It may look like a vein, but it does not function as one." The locations of wetlands is closely related to their functions; riverine bottomland, for instance, can provide flood control only if it is located alongside a river. It follows that not all wetlands are of equal ecological significance and that wetlands are simply not interchangeable commodities. An additional problem with mitigation is that the methodology of wetlands restoration remains undeveloped. A North Carolina wetland that had undergone what seemed to be a successful restoration was found to be producing only one sixth of the living matter that a similar natural marsh produced.

The lesson here is that when mitigation is used, the mitigation project needs to be carefully planned so that it has a chance to become a productive ecosystem and habitat. A 5 acre pond in the middle of a housing development with steep banks, little vegetation, and polluted by fertilizers and insecticides is not a viable mitigation project!!

Sources: "Introduction to Environmental Law and Policy - Protecting the Environment Through Law", by C. M. Valente and W. D. Valente, West Publishing Company, 1995 and the Houston Chronicle article by Bill Dawson, Dec. 13, 1996, "Feds tighten rule, boost protection for wetlands."

Next: Air Pollution

ANYONE ON LINE?

Paula Kennedy has requested that anyone who has an email address please pass that on to her at:

ABNC@ghgcorp.com

VOLUNTEER DUTY SCHEDULE

In an attempt to take some of the load off of the Coordinators, and to help cut down on our "no show" rate, a list of the persons who have volunteered for various assignments will be printed in the Bayou Foliage each month. If you are scheduled for a particular duty and you are unable to attend, please use this schedule to try to find your own substitute. You may be able to trade weekends, or swap a Saturday for a Sunday with someone who has the same duty another time during the month. If you do trade, please be sure to call the appropriate coordinator and the ABNC desk to inform them.

DATE	11:00 TRAIL	2:00 TRAIL	INFO. SERVICES	FARM DEMO	NAT. HIST. DEMO	FARM INTERP.
Sat. 4/5	Jane Bingel	Cris Santiago		Tom Scarsella-Wood Shop Hillary Gibbs-Veg. Garden	Ruby Dilgren Alligators	Paul & Stephania Rogers
Sun. 4/6		Al Stock	Mary Ann Tucker	Jane Bingel Rope Making	Anne Tincher Micro World	
Sat. 4/12		Ray Parker	Paula Thorson	Jane Bingel Cheese Making	Marilyn Clark Humming birds	
Sun. 4/13		Melanie Weisman		Emily Egan Weaving		
Sat. 4/19	Louise Peck	Earth Day Tours		Paul & Stephania Rogers Rope Making	Jim Crabb Mushrooms	
Sun. 4/20		Melanie Weisman		Mary Ann Tucker Basket Weaving	Eleanor Stanley Re-cycle	
Sat. 4/26		Anne Tincher		Carol MacGregor Sewing	Zel Arbuckte Snakes	
Sun. 4/27		John Siptak		Irene Ward Butter Making	Eleanor Stanley Reptiles	

VOLUNTEER BOARD FOR 1997

	Office	Home	Office
Helen Burton	281-474-7133	281-488-4157	281-488-4157
Becky Brignac	713-947-0216	713-455-1502	713-453-5204
Susan Williams	281-487-3033	281-337-3129	281-338-4814
Carol MacGregor	281-488-7293	281-554-5069	
Jim Hawkins	281-326-5375	281-488-0112	
Bob Smither	281-331-2548	281-996-7888	713-776-5745 fax
		email Mike-Friendswood-TX@worldnet.att.net	

WANTED: A FEW GOOD MAILERS

Each month approximately 1200 copies of the members' newsletter, *Along the Bayou*, have to be collated, folded, labeled, and sorted before they are mailed. Another 800-1300 copies are collated and left at the reception desk for visitors. The job can ordinarily be completed in about three hours and is usually done the last weekend of the month. All help is very much appreciated - and very much needed.

I'd like to express my thanks to Jane Bingel, Georgia Colyer, Marilyn Collings, Pat Grimes, Jean Kruse, Larry Kruse, and Fukiko Matsubara for coming out on March 2 to prepare the April issue of *Along the Bayou* for

mailing. It was especially nice, too, to have Marsha Goss, Patsy Cashion, and Jennifer Bingel join us. They have just completed their volunteer training.

Please call me at 281-487-3033 if you would like to be contacted when it's time to get an issue out.

Susan Williams

WHERE'S THE LOG BOOK?

The volunteer log book and continuing education book, as well as the stewardship project book, have been moved to the break room. This leaves the front desk free for information available to the public. Please continue to keep up with your hours on a regular basis. Helen is calculating hours monthly, so it's important that they are up to date. Thanks.

Mary Alice

Hiya!
Mary Alice
😊

MS MARY ALICE TRUMBLE
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