

Bayou Foliage

Volume 15 No. 6 June 1997

A publication of the Armand Bayou Nature Center Volunteers

"Interested + Informed + Involved"

JUNE CALENDAR

- June 1 Retention Comm. Meeting 2:30
Volunteer Board Meeting 4:00
- 6 Stewardship Sat. (trail, forest & facilities)
- 7 Fall Festival Comm. Meeting 4:00
Volunteer Picnic at 5:30
- 8 Cont. Ed. - Jimmy Martyn Farm 12:00-3:00
- 12 Volunteer Meeting 6:30 - 9:00
- 15 Stewardship Sat. (prairie & marsh)
Bayou Foliage inputs Due
- 28 Cont. Ed. - Galveston Bay Shell Collections

We look forward to seeing you at the Volunteer Picnic Saturday, June 7 at 5:30

APRIL VOLUNTEER OF THE MONTH

The Volunteer of the Month for April is Patsy Baukman. Patsy has been a volunteer at ABNC since September 1995. She became a volunteer because of her son Josh. He had taken classes at ABNC and wanted to volunteer, but he was too young to volunteer without an adult, so she came with him. Patsy helps with newsletter mail outs and special events. She and her husband recently had an Indian display at Earth Day. She likes nature and likes being at Armand Bayou away from the hustle and bustle of the city.

Thanks Patsy for volunteering with the nature center.

JUNE ABNCV MEETING Thursday June 12

- 6:30 Snacks & Conversation-Get better acquainted
- 7:00 Program: Chuck Buddenhagen - Science and art of beach combing
- 8:15 Business Meeting
- 9:00 Adjourn

Greeters: Ruby Dilgren and Ken Russell

Chuck is director of non-credit education at College of the Mainland, Galveston. Not only does he teach environmental and historical geology, but he is also an ambassador for the Galveston Bay Foundation.

Through slides we will walk the beach to help identify those "odd items" that we often find. The science is trying to identify and understand the natural history of the organism. The art of beach combing is sharing the secrets of a successful hunt.

Think green and bring your own cup

JUNE BIRTHDAYS

George Regmund	6/01	Goose Ganter	6/03
Anne Tincher	6/07	Karen L. Smith	6/07
Melanie Weisman	6/08	Sandy Sandifer	6/10
Norman Wong	6/12	Ron Morris	6/16
Carol Harper	6/22	Marjorie Borey	6/23
Christine Barrett	6/23	Dottie Evans	6/24
Harvey Louderback	6/26	Kevin Smith	6/28

ROSTER CHANGES

Gib Harper 15707 W. Astern Dr. Crosby, TX 77532-5711	Cliff Meinhardt 5104 Carefree League City, TX 77573 316-1142
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MINUTES OF THE ABNCV MEETING THURSDAY, APRIL 10, 1997

The meeting was called to order by Vice Chair Becky Brignac who introduced the evening's speaker, Samra Bufkin, a representative of the Galveston Bay Foundation. Samra gave an overview of Galveston Bay and the work of the foundation and then shared ideas on reducing pollution through the use of non-toxic cleaning products.

Chair Helen Burton opened the business meeting by thanking Kathy Appleby and Dewanna Norris for bringing refreshments. The minutes of the April meeting were approved as published in *The Bayou Follage*. Treasurer Carol Macgregor submitted her report: the balances in the checking and savings accounts are \$2,835.10, and \$589.12, respectively. George Regmund asked for help with setting up for the upcoming Bayou Boli and announced that 280 tickets had been sold. There was a motion made that a new board position be created, that of Outreach Coordinator. (The proposal had been published in *The Bayou Follage*.) The motion was seconded and approved by acclamation.

There followed a discussion of a memorial for Laura Smither. The Texas Gulf Coast Turtle Society will participate - along with any others who wish to contribute - in an effort to raise funds for a granite bench which will be on the grounds of ABNC. It was suggested that a contribution be made from the ABNC volunteer treasury. The Volunteer Board will study the by-laws to determine how this can be accomplished and present a report at the June meeting.

George announced that Patsy Baukman is the April Volunteer of the Month. In the Staff Report, George told the volunteers that Mary Alice Trumble's mother had recently had hip surgery and is recovering. He announced, too, that Mary Alice would like to find some teenagers who might be able to work part time at Eco Camp.

Helen encouraged those present to take first aid training from The Red Cross and said that the time spent in training would count as continuing education. She announced that the volunteer picnic has been re-scheduled for June 7. Becky urged the volunteers to attend the Outreach Program training, Ruby Dllgren asked people to sign up to work as farm interpreters and greeters, and Hilary Gibbs asked for comments on the need for the strings in the garden. The next meeting will be June 12.

Respectively submitted,
Susan Williams,
Secretary

CONTINUING EDUCATION

THE JIMMY MARTYN FARM

Sunday, June 8, 1997

12:00 - 3:00 p.m. Auditorium/Farm

Instructor: Randy McLean - former ABNC farm manager for 7 years

Randy will present a slide presentation on the history of the farm. That will be followed by a tour of the site which will focus on the use of local resources by the people who lived in the area. Randy will also describe the tools which were used on the farm.

GALVESTON BAY SHELL COLLECTIONS

Saturday, May 28, 1997

9:30 - 11:30 a.m. Auditorium

Instructor: Chuck Buddenhagen - Ambassador for the Galveston Bay Foundation

Chuck will use the extensive shell collection kits which were given to ABNC by the Galveston Bay Foundation. We will walk through the treasures making them come alive with natural history. Chuck encourages you to bring any beach combing items of your own to be identified.

COTTON SPINNING CLASS

Sunday, July 13, 1997

1:00 - 5:00 p.m. Pole Barn

Instructors: Emily Egan & Caitlin Pomeroy

Cost: None, but spindles will be available for \$6

Materials to bring: None except note taking supplies, but if students have wheels, spindles, cotton, cards, bows, etc. they're welcome to bring them.

Limit: 8

Students will learn about the various species of cotton used around the world, and will get hands-on experience in processing and spinning cotton using a hand spindle. Bowing and wheel spinning will be demonstrated.

Becky Brignac

LOST

If anyone has borrowed the video, "Sharing the Joy of Nature," please return it to Mary Alice.

STEWARDSHIP NEWS

April was a bust as far as stewardship went. The weather just didn't cooperate. But, the weather must be just what the doctor ordered for the prairie. If you haven't taken a chance to look east of the farm house lately, do so, especially at dusk. The prairie is looking better than I've seen it in my tenure here. This is a result of the plot burns and concentrated tallow control effort and of course the ability of nature to regenerate itself. It's continued stewardship effort that will be needed to maintain the prairie looking better than it does today.

Be watching as the maintenance building will begin very soon. Also, be watching the Nature Center will be getting a new electrical main very soon as well. We will need a few extra hands when these much needed projects get their final approvals and / or material supplies.

We are still looking for a small engine mechanic. We have several Briggs & Stratton and Tecumseh engines that need some repairs. If you would like to volunteer please call Mark or myself.

The June stewardship Saturday activities will focus on the following:

Forest / Trail - Farm / Facilities

- 6/7 Continue rebuilding trail bridges
Add limestone to trails
Complete addition to the Implement Shed
General facility maintenance
Electrical Panels / Transformer pads

Prairie - Wetlands / Bayou

- 6/21 Burn black lines (fire breaks) on the prairie
Tallow control
Cyclone fence repair
Fence line clearing
Planting marsh grasses
Installing snow fence

The July Stewardship Saturday activities will focus on the following:

Forest / Trail - Farm / Facilities

- 7/5 Start the second implement shed extension
Repair Barn Door
Replace Eve Boards on Pole Barn
Tallow control
Start selected trail bridge overhau

Prairie - Wetlands / Bayou

- 7/19 Burn black lines (fire breaks) on the prairie
Tallow control
Cyclone fence repair

Questions, comments or suggestions are always welcome.

Let's talk, Jim Hawkins

FIRST AID TRAINING

If anyone is interested in information about first aid training from the American Red Cross call Helen Burton at 281-474-7133. The training will count as continuing education. We also have a few volunteers who are planning on training to become first aid and CPR trainers, and if you would like to also, Helen has information on that also.

MEMORIAL

Teresa Scannell with the Gulf Coast Turtle and Tortoise Society is collecting funds for a memorial for Laura Smither. She would like to place a granite bench at Armand Bayou Nature Center. If you are interested in making a donation make a check out to "Laura Smither Memorial Fund" and mail it to Teresa Scannell, 802 Hyannis Port South, Crosby, TX 77532. If you have any further questions call Helen Burton at 281-474-7133.

THANKS FOR YOUR HELP

Thanks to all the volunteers who helped with demos, setup, arranging participants, helping with the membership and information booths, and the countless other activities that helped make ABNC's Earth Week activities happen. We could not have pulled this event off without the help of our volunteers. We are promising better weather for next year's festival, so expect bigger and better things.

Thanks For Your Help Everybody,
Colin Shackelford

SUPER VOLUNTEERS

In the first four months of 1997 we had 122 volunteers log 3740 hours! Fifty nine volunteers have volunteered at least 16 hours (one fourth the annual requirement.) Are your hours being counted?

ECO CAMP HELP NEEDED

We are looking for volunteers who would like to work as a teacher's aide during Eco Camp. Eco Camp is for 4 - 12 year olds, so the first requirement is enjoying children. Volunteer aides will assist the teachers. The first session of Eco Camp is June 9 - 27 and the second is July 14 - August 1. Hours are from 9-3. Most of the classes will be out-of-doors. We need aides for the morning sessions 9 - 11:30 a.m., for the afternoon sessions 12:30 - 3 p.m. and for supervision of the campers during the lunch hour from 11:30 - 12:30.

We also are in need of teens (age 16 and up) to do baby-sitting during the extended care hours of 8-9 a.m. and from 3-5 p.m. This is a paid position.

Lastly, we need volunteers to help with check-in on the first day (Monday) of each week. The hours will be from 8:30-9:30 a.m. If you can help in any of these areas, please let me know as soon as possible.

Thanks,
Mary Alice Trumble

Environmental Notebook

The Atmosphere and the Greenhouse Effect by Lou Wheatcraft

First a correction. The second sentence of last month's article read: "Management of this entrainment so as to....." should have been: "Management of this environment so as to.....".

Earth's atmosphere is a very thin layer of gases surrounding the planet. Its thickness has been compared to that of an apple peeling to an apple. The atmosphere makes life as we know it possible on Earth, besides supplying the oxygen we need to breathe, the atmosphere protects us from harmful ultraviolet and cosmic rays and maintains a reasonably uniform and moderate surface temperature range that allows us to live. The atmosphere knows nothing of the artificial borders between countries - thus atmospheric problems will affect life on Earth no matter where it is. Atmospheric problems are global, and thus solutions to those problems must be global. But before we get into some of the problems, we need a better understanding of the atmosphere.

You all have heard that our atmosphere is divided into layers. Starting at ground level these layers are the troposphere, stratosphere, mesosphere, and thermosphere. One question you might ask is how are these layers divided, i.e., what distinguishes one layer

from the other? The answer may surprise you. The difference is temperature! Just above the surface, in the troposphere, the temperature normally decreases with increasing altitude, from an average of about 60°F at the surface, reaching a minimum of about -70°F at about 33,000 to 52,000 feet. This is where we live, where the weather occurs, where most airplanes fly, and where 75% of the atmospheric mass is. The upper limit is called the tropopause. It is a good thing there is this decrease of temperature, because as water vapor rises into the troposphere, it cools, condensing into clouds, and then falls back to Earth (this is a major factor in our weather.) Without the decrease in temperature water vapor could escape out into space! If that happened we would have a very cold and dry planet.

The next layer is the stratosphere. Here is where something odd happens, the temperature starts to increase starting at the tropopause! It reaches a maximum of between +28°F and +35°F at about 160,000 feet (30 miles)! Then at its upper limit, the stratopause, the temperature again begins to drop in the Mesosphere, reaching a minimum of -134°F at about 300,000 feet (50 miles). Why did the temperature first decrease in the troposphere, then increase in the stratosphere, and again decrease in the mesosphere? The answer is OZONE!! This phenomenon is due to the presence of ozone - the heating effect is caused by the absorption of ultraviolet radiation energy by the ozone. I will discuss this in more detail in another article.

At the top of the mesosphere is the mesopause and the beginning of the fourth layer - the thermosphere. At the mesopause the temperature again starts to rise - to over 2200°F at 300 miles! This high temperature is due to the absorption of very energetic radiation of the shorter wavelengths of high energy ultraviolet solar radiation.

But what happened to the ionosphere? Actually, the mesosphere and thermosphere make up the ionosphere. At altitudes above 50 miles, most molecules have had some of their electrons stripped off by ultraviolet light leaving a lot of free electrons and positive ions. The presence of the ionosphere has been known since about 1901, when it was discovered that radio waves could be transmitted over long distances, where the curvature of the Earth makes line-of-sight transmission impossible. These radio waves bounce off the ionosphere. In darkness, the positive ions slowly recombine with free electrons. This process is especially rapid in the lower regions of the ionosphere, where the concentration of the electrons and ions are highest. Thus, the lower limit of the ionosphere lifts at night and makes possible the transmission of radio waves over much greater distances. That is why AM radio reception is so much better at night.

Now we can talk about the greenhouse effect, and how the greenhouse effect is responsible for the average surface temperature of about 60°F - making life on Earth possible. There is a tremendous amount of solar energy reaching the Earth every second. Most of the incoming solar energy is largely in the visible region of the electromagnetic spectrum. The shorter wavelength blue solar light is scattered relatively more strongly by molecules and particles in the upper atmosphere - that

is why the sky is blue as it is viewed by scattered light. Similarly, light that has been transmitted through scattering atmospheres appears red, particularly around sunset and sunrise, and under conditions in which the atmosphere contains a high level of particles (like when a volcano erupts.)

If all of the solar energy reached the Earth's surface and were retained, the planet would have vaporized long ago. As it is, the complex factors in maintaining the Earth's heat balance within very narrow limits are crucial to retaining conditions of climate that will support present levels of life on Earth. The great changes to climate that resulted in the ice ages during some periods, or tropical conditions during other periods, were caused by variations of only a few degrees in average temperature. Marked climate changes within recorded history have been caused by much smaller average temperature changes. The mechanisms by which the Earth's average temperature is retained within its narrow range are complex and not completely understood - thus why you read about so many different views about the greenhouse effect and global warming.

About half of the solar radiation entering the atmosphere reaches the Earth's surface either directly or after scattering by clouds, atmospheric gases, or particles. The remaining half of the radiation is either reflected directly back or absorbed in the atmosphere and its energy radiated back into space at a later time as infrared radiation. Most of the solar energy reaching the surface is absorbed and it must be returned to space in order to maintain heat balance. In addition, heat is generated in the Earth's core and hot mantle. This heat too must be lost. Radiation of energy in Earth's atmosphere occurs through radiation in the infrared region of the spectrum. As the only way in which energy is transmitted through a vacuum, radiation is the means by which all energy lost from the planet to maintain its heat balance is ultimately returned to space. Thus the Earth is in an overall thermal balance with its surroundings, radiating energy into space at a rate equal to the rate at which it absorbs energy from the sun. The infrared radiation that carries energy away from the Earth is of a much longer wavelength than the sunlight that brings energy to the Earth. This is a crucial factor in maintaining the Earth's heat balance and one susceptible to upset by human activities.

Earth's average surface temperature is about 60°F because of an atmospheric "greenhouse effect" in which water vapor and, to a lesser extent carbon dioxide, reabsorb much of the outgoing infrared radiation and reradiate about half of it back to the surface. Were this not the case, the surface temperature would average around 0°F! Most of the absorption of infrared radiation is done by water molecules in the atmosphere. (That is why it says warmer at night in the Winter if there is a high dew point or cloudy skies.) But water vapor only adsorbs some of the infrared radiation, leaving "holes" in the infrared spectrum allowing some of this radiation to radiate out to space. Carbon dioxide, though present at much lower concentration than water vapor, also plays a key role in maintaining the heat balance, because it fills

some of the "holes" left by water vapor. Thus, there is some concern that an increase in the carbon dioxide level in the atmosphere could prevent sufficient energy loss to space and therefore cause an observable and, very possibly, damaging increase in Earth's temperature resulting in undesirable changes in our climate. It is this phenomenon that is popularly known as the greenhouse effect which may occur from elevated carbon dioxide levels caused by increased use of fossil fuels and the destruction of massive quantities of forests.

Sources: "Introduction to Environmental Law and Policy - Protecting the Environment Through Law", by C. M. Valente and W. D. Valente, West Publishing Company, 1995; "Environmental Chemistry", sixth edition, by Stanley E. Manahan, Lewis Publishers, 1994, and "Chemistry, the Central Science", fifth edition, Brown, LeMay, and Bursten, Prentice Hall, 1991.

Next: How real is the threat of global warming?

THANKS

First of all, to everyone who volunteered to work on Information Services or as Farm Interpreters in April, May and now June. I really appreciate the way everyone has responded. Thanks for all your help!

I also want to thank everyone who agreed to do demos on Earth Day. You made the job easier by cooperating so readily and I'm doubly grateful to you for coming out despite the miserable weather.

Thanks!
Ruby Dilgren

EARTH DAY

"Let a smile be your umbrella" couldn't be more appropriate to describe the volunteers who helped with children's crafts on Earth Day. They kept the children and parents entertained with art activities, "recycled" volleyball and bowling! A big thank you to Becky Brignac, Kathy and Becky Appleby, DeWanna Norris, Helen Harger, Susan Hesley, Shirley Bishop, and Donna Chism.

Chris LaChance

REGARDING THE GARDEN TOUR

Last year the drought was a concern. This year the cool, rainy weather was the concern, but the National Weather Bureau in Dickinson has the straight scoop. They assured us that the rain would blow out by early Saturday morning. It did indeed. They also said it would

be cool, and it was indeed. Every driveway on the garden tour seemed to be a wind tunnel.

But the visitors did come to view our lovely gardens. In fact over 500 visitors arrived. If YOU did not attend you missed clever, creative and colorful yards. They were a true feast for the eyes.

Including the six local garden clubs; Clear Lake City, Nassau Bay, League City, Dig N' Design (El Lago,) Gardeners By The Bay, Petal Pushers (Deer Park) and of course our own volunteers, well over one hundred people were available to greet the Garden Tour visitors. In addition, in the weeks prior to the event, about a dozen people were gracious enough to deliver press kits all around the city. To all the wonderful people who gave their time, thank you! Still, it was difficult to recruit enough volunteers. As Mary Ann Tucker commented, this is supposed to be a fun event. But most of us felt stressed...not enough greeters and no opportunity to visit all the yards on the day of the event. All home owners had worked so very hard to have every thing pristine. It would have been appropriate for all Garden Tour Committee people to visit on that day and personally thank the home owners.

There are many questions to consider for next year. The major one, do we continue this event? Although ticket prices were raised slightly, we still fell behind our block buster first year and modest second year.

We are considering a telephone-a-thon If we do continue next year. Is two hours too much to ask? Many people have asked for a two day event in order to coordinate their many obligations of family life.

We would appreciate your input, positive, negative, or other wise. You may call, write or drop a note to ABNC. Not to belabor the point, but I am always abashed at the lack of response. Are we always glad when the other guy does it??

Come on folks! There must be a few more of you volunteers who like to garden and would be a real asset to our committee. Come on out!!

But on a very positive note, I want to thank Mary Ann Tucker for graciously coordinating, worrying and feeling the stress as the days grew close, and each of the committee members who coordinated a yard with all to few greeters. Those smiling faces are what make this tour such a fun event for the visitors. To each of the Garden Tour Committee, keep that creative input coming as we look to next year.

Barb Hill

Please take a moment to fill out the attached survey and return it by July 1st.

PAPER PICK UP

We need someone to pick up paper at Kinko's on Bay Area Blvd once a week. It does take a vehicle at least the size of a Ford Explorer and the boxes are not covered, so the vehicle needs to be. We get from 250-350 pounds of paper a week from them and it really helps our recycling effort. They will help you load it into your vehicle, but YOU need to have someone hefty (like Herman) to unload it. If you would like to take on this job, give either Herman or Helen a call at 474-7133. The Kinko's at Fuqua may be willing to recycle with us if anyone else is interested in a once a week pick up and delivery to ABNC.

PLAY TIME!!!

C & W DANCING

Beginners two-step/polka

Location: SSQQ on Bissonnet in Bellaire

Dates: Sundays June 1 - June 22 (also in July)

Fridays June 6 - June 27 (also in July)

Time: 7:00 - 9:00 p.m. Class-Partner not needed

Cost: Gentlemen \$40 (the higher cost reflects the increased amount of time the instructor spends with the men who are required to learn more)

Ladies \$32 (if the group is 10+ we get a \$10 break)

Optional: 9:15-11:00 Dance Practice/Parties - \$5 each time and includes all the soft drinks, popcorn, wine, beer you want

Irene Ward and I took dance lessons here last year and had so much fun!! Thought it would be fun for a group of us to go and learn country western dance and have a lot of fun as we learn. Partners are not required for we are switching all the time.

After the classes is "practice night." Instructors are available during the practice if you feel you need more personalized instruction. The classes introduce us to the mechanics of footwork, leads and patterns, but it takes regular practice to get the "feel" of dancing.

Let's go together and have a great time!! Call me.

Becky 713-947-0216

Please call Mary Alice if you have a wagon you could loan ABNC to be used during Eco Camp.

VOLUNTEER SURVEY

Please return by July 1

We're evaluating our volunteer program and need your comments and opinions. Please complete the survey and put it in the Volunteer Board box in the break room or mail it to Helen Burton, 2918 Sea Ledge Dr., Seabrook, TX 77586

Use a number to indicate what you think: Excellent - 5, very good - 4, fair - 3, poor - 2, bad - 1.

VOLUNTEER MEETINGS & CONTINUING EDUCATION

- Length of Speaker's presentations
- Content of continuing education presentations
- Business meetings
- Are you getting what you want in Continuing Education?

Comments

BAYOU FOLIAGE - 5 - read all, 4 - read most, 3 - read some, 2 - read little, 1 - read none

- Calendar, Thanks, Announcements, Technical Articles
- Do you get the information you need as a volunteer?
- Would you like to have profiles of staff, Volunteer board, board of trustees?

Comments and suggestions for other categories

OVERALL EXPERIENCE

- Do you feel welcome? Do you feel needed?
- Are you enjoying what you do?

Comments

TRAINING: Respond if you trained since February '95

- Length of training Has met expectation
- Were you prepared for your volunteer position?

Comments

Do you have any comments regarding staff?

Use other side for any other items or thoughts you would like to mention.

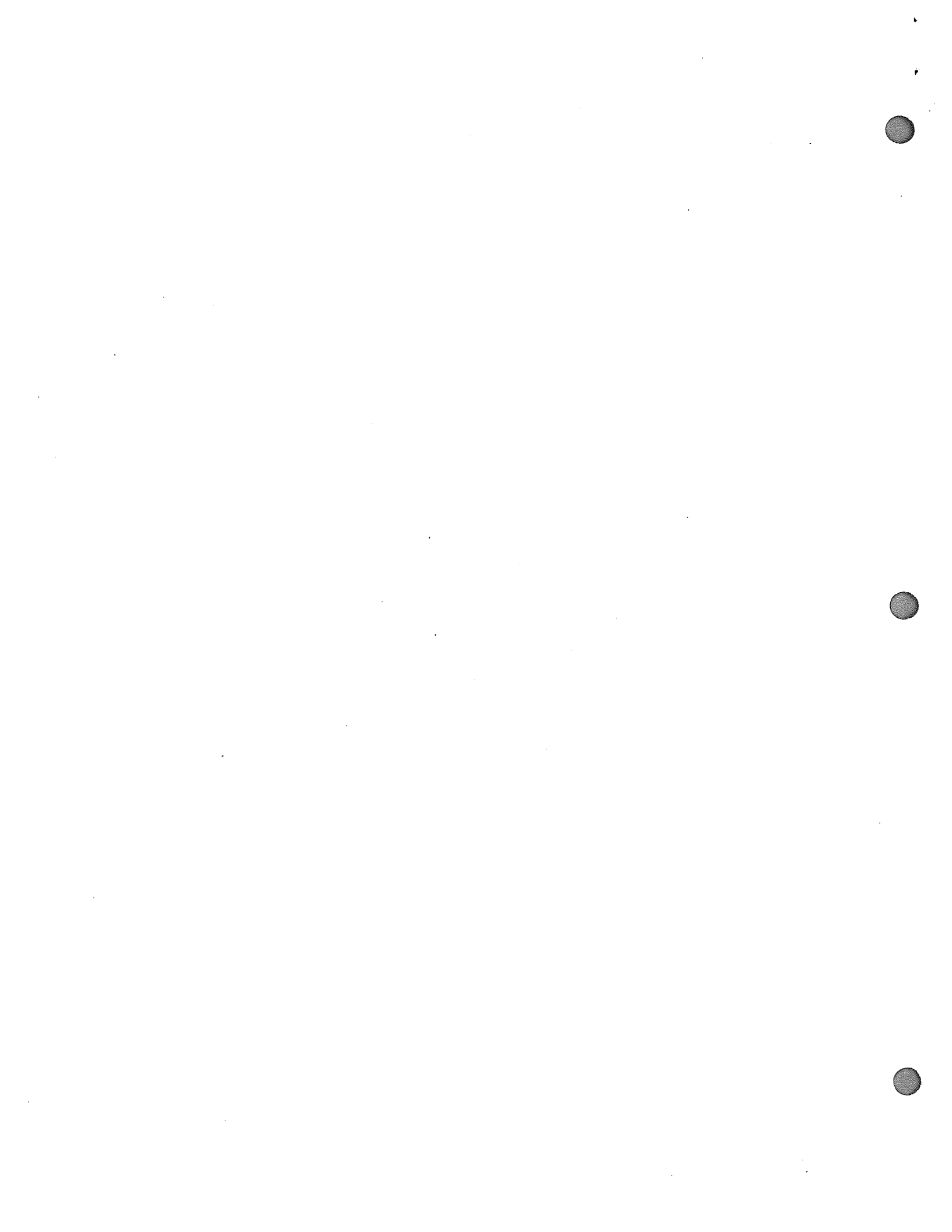
Number of years an ABNC volunteer.

What do you do as a volunteer at ABNC?

What do you do for fun at ABNC?

Thanks for your time.

Helen Burton and the Volunteer Board



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.
Sun. 6/1			Kathy Appleby	Stephania & Paul Rogers Rope Making	Kathy Sosa Butterflies	Janet Miller
Sat. 6/7			Joe Bryan	Larry Veale Indian Crafts	Ruby Dilgren Reptiles	Paula Thorson
Sun. 6/8			Mary Ann Tucker	Ann Brinly Spinning & Weaving	Patsy Cashion Opossum	Marjorie Borey
Sat. 6/14			Susan Williams	Irene Ward Butter Making	Pat Grimes Snakes	Eleanor Stanley
Sun. 6/15			Jean Kruse	Mary Ann Tucker Basket Weaving	Bre Dorsett Coyote & Bobcat	Larry Kruse
Sat. 6/21			Patsy Cashion	Emily Egan Weaving	Marilyn Clark Hummingbirds	Stephania & Paul Rogers
Sun. 6/22			Joan Shack	Paula Kennedy Tatting	Eleanor Stanley Reptiles	Ruby Dilgren
Sat. 6/28			Fukiko Matsubara	Irene Ward	Anne Tincher Butter Making	Jane Bingel Micro World
Sun. 6/29			Henry Gibbs	Tom Scarcella Black Smithing	Hillary Gibbs Study Skins	Carl & Fran Cognata

VOLUNTEER BOARD FOR 1997

	Home	Office
Helen Burton	281-474-7133	
Becky Brignac	713-947-0216	
Susan Williams	281-487-3033	
Carol MacGregor	281-488-7293	
Jim Hawkins	281-326-5375	
*Bob Smither	281-331-2548	
*Ruby Dilgren	281-488-1727	
Chair		Home
Vice Chair		281-488-4157
Secretary		713-455-1502
Treasurer		281-337-3129
Stewardship		281-554-5069
Interpretation		281-488-0112
is filling in		281-996-7888
Admissions		281-488-4157
Weekend Demos		713-455-1502
Weekend Trail		281-337-3129
Weekend Farm		281-554-5069
Weekday Trail		281-488-0112
Newsletter		281-996-7888
email		Mike-Friendswood-TX@worldnet.att.net

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