Canyon Creek, safely nestled in Arizona's Tonto National Forest, touched only by dirt roads and flycasters, harbors the nearly ideal riparian community. After planting cottonwoods along the creek with members of the Arizona Wildlife Federation one summer, it was my job to return periodically and make sure the young trees were well watered and remained fenced from cattle. I treasured every moment in the grassy zone that bordered the creek, decked with columbine and monkey flower; danced in by iridescent violet-green swallows and sun-swallowtail butterflies.

Canyon Creek contains a portion of the estimated one percent of Arizona's riparian habitat that has not been destroyed or degraded. Much of the other 99 percent has been inundated by federal dams; overgrazed by livestock permitted by the Bureau of Land Management (BLM); removed by U.S. Army Corps of Engineer-permitted channelization and bank stabilization projects; or intentionally cut down by the Bureau of Reclamation to decrease water losses through evapotranspiration.

Most of Arizona's destroyed riparian zones existed in the desert, where riparian communities are most important. The cottonwood, willow and mesquite trees that comprise native riparian communities in the desert provide a mosaic of open space and vegetation under their canopies that are unavailable in upland habitats and are essential for the foraging of insect-eating birds. Cottonwoods and willows, commonly 50 to 100 feet tall at maturity, insulate desert song.

Continued on page 7

Whether its a flock of geese, or an osprey, riparian habitat is critical to these and other species' survival. Although much of the country's original streamside habitat has been destroyed, it can be replaced with new vegetation.
REFUGE REVENUE SHARING IN LIEU OF TAXES

Refuge Revenue Sharing checks were distributed to Cameron, Hidalgo, Willacy, and Starr Counties during June, announced Santa Ana/Rio Grande Valley National Wildlife Refuges Project Leader Nita Fuller and Laguna Atascosa NWR Project Leader Ray Rauch. Checks for $81,910, $30,329, $25,600, and $1,514 were turned over to officials of Cameron, Hidalgo, Willacy, and Starr Counties respectively. Lands acquired by the Fish and Wildlife Service (FWS) are removed from the tax rolls; however, in accordance with the Refuge Revenue Sharing Act (Public Law 95-469, as amended, under provisions of 50 CFR Part 34), the county or other local unit of government receives an annual revenue sharing payment which often equals or exceeds the amount that would have been collected from taxes if in private ownership.

Since 1935, the FWS has made revenue sharing payments to counties for refuge land under its administration. The counties maintain the responsibility for prorating the payments received between themselves and other taxing entities such as school districts. The revenue sharing fund consists of net income from the sale of products or privileges. Some examples include timber sales, grazing fees, permit fees, oil and gas royalties, etc. Payments on purchased land are based on the greatest of 3/4 of 1 percent of the fair market value; 25 percent of net receipts; or $0.75 per acre. Payments may not be less than $0.75 for all purchased or donated lands. Payments can be used for any governmental purpose.

Fuller and Realty Specialist Jeb Stuart delivered the $30,239 Hidalgo County check on 18 June to Hidalgo County Assessor-Collector Ciro Treviño and County Treasurer Arturo Solís at the Courthouse in Edinburg. Rauch and Assistant Refuge Manager Sue Rice delivered the $81,910 Cameron County check on 30 June to the Cameron County Commissioners' Court in Brownsville. Rio Grande Valley NWR Refuge Manager Robert W. Schumacher and Stuart delivered the $25,600 Willacy County check on 13 June to Tax Assessor-Collector Emma Ross and the $1,514 Starr County check on 18 June to Deputy Treasurer Noemí Guerra. The checks were for the period beginning 1 October 1984 and ending 30 September 1985.

Hidalgo County's check was for both Santa Ana NWR and units of the the Rio Grande Valley NWR in Hidalgo County. The Willacy County check was for the units of the Rio Grande Valley NWR located there plus the portion of Laguna Atascosa NWR in Willacy County. Starr County's check was for units of the Rio Grande Valley NWR located there. The Cameron County payment included both Laguna Atascosa NWR and the Rio Grande Valley NWR units there.

The three Valley refuges play a critical role in preserving a portion of native wildlife habitat remaining in the lower Rio Grande Valley. This role takes on special significance because many of the plant and wildlife species in this area are not found elsewhere in the United States. The overall mission of the National Wildlife Refuge System is to provide, manage, and safeguard a national network of lands and waters of sufficient size, diversity, and location to provide for the needs of wildlife now and in the future. Rio Grande Valley National Wildlife Refuge, established in 1980 and headquartered with Santa Ana NWR near Alamo, remains in an active land acquisition mode with lands still being added to the Refuge.
NATIVE PLANT PROJECT
Meeting Notice

Date: Friday, 12 September 1986
Time: 1930 (7:30 PM)
Place: La Lomita Farms, 3 3/4 miles south Conway on FM 1016, Madero Community, south of Mission, Texas (see map). [Take FM 1016 (South Conway) south from the expressway to Madero. The new FM 1016 turns east, La Lomita is on the old 1016 south of Madero. La Lomita is on the "little hill" on the south side of the blacktop between Madero and Granjeno just before the turn off to Anzalduas County Park. Lost? Their phone number is 581-2725.]

Agenda:
(1) Native Plant Project Board of Directors meeting at 1830 (6:30 PM)
(2) Native Plant Project general meeting at 1930 (7:30 PM)

Program: Paul Cox and Patty Leslie of the San Antonio Botanical Gardens will present a program on the current status of SABG and provide information on getting an ARBORETUM started. Additional details should appear in the newspapers.

Secretary
Native Plant Project

Hachinal (Willow-leaf Heimia)
Heimia salicifolia (H.B.K.) Link & Otto
Lythraceae (Loosestrife Family)

FIELD IDENTIFICATION. Spreading, much-branched, glabrous shrub attaining a height of 9 ft.

FLOWERS. Axillary, on slender peduncles ½-¾ in., bearing 2 oblong to spatulate, foliaceous bracts one half to fully as long as the campanulate calyx; corolla yellow, petals 5-7, spreading, obovate, yellow, ¼-¾ in. long, deciduous early; stamens 10-18 (generally 12), filaments long, slender, exserted, inserted on the calyx-tube; style slender, surpassing the stamens, ovary sessile and 4-celled; calyx campanulate, ¼-½ in. long; sepals 5, triangular, acute, erect or converging, with subulate, hornlike appendages at base of the lobes.

FRUIT. Capsule obovoid, septicidal, dry, brown, ribbed, calyx-lobes closed above, seeds minute and clavate.

LEAVES. Blades opposite or whorled; linear to lanceolate or oblong; apex acute, acuminate or obtuse; base gradually narrowed to a short petiole or sessile, margin entire, blade length ½-2 ½ in. Upper surface bright green and glabrous; lower surface paler, glabrous or minutely papillose.

TWIGS. Young ones green to reddish brown, glabrate, somewhat angled or striate; older ones gray to brown, glabrous, sometimes shreddy; internodes ½-1¼ in. long.

RANGE. Usually along streams or resacas.
Specimens collected by the author on the banks of the Rio Grande River at Brownsville, in Mexico in Baja California and Coahuila, also Veracruz and Oaxaca. Southward into South America. Also in the west Indies.

Continued overleaf
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WILDFLOWER DEFINITION - A CORRECTION

On page 2 of The Sabal 3(5), the statement "wildflowers are annuals" was carelessly repeated from the cited reference. Wildflowers obviously can be annuals, biennials, or perennials.

BEECH CLEANUP

The Native Plant Project and Frontera Audubon Society proposal to coordinate a beach cleanup on Boca Chica/Del Mar beaches was not accepted. The cleanup was to be the FAS field trip for September. Since there is insufficient time to organize a replacement field trip (it is already past time to submit articles to this newsletter), the field trip chairman suggests that those interested in participating in the beach cleanup call Merriwood Ferguson (512-831-9347 (work) or 512-957-9578 (home)) and volunteer their services as individuals.

WHAT CAN YOU DO?

* Be a BEACH BUDDY! Thousands of volunteers are going to participate in CEE's TEXAS COASTAL CLEANUP on Saturday, September 20th. Not only are volunteers needed to pick up debris, but also to identify the sources of this debris so that they may be confronted and stopped from littering.

IN THE MEANTIME . . .

* Avoid buying unnecessary plastic items. For example, buy cardboard milk cartons instead of plastic jugs.

* Onshore or offshore, remember to dispose of your litter properly.

* Cut the loops of six-pack rings before disposing of them. This can prevent an animal from becoming entangled and dying.

* Report the location of any 30 or 55 gallon drum found on the beach to the Texas Emergency Response Center. Call their 24-hour hotline: 512-643-7727. Do not go near the drum because the contents may be harmful.

* Write to your state representative about the need to stop ocean littering before it hits the beaches.

* Show your support for the U.S. to approve part of an existing international treaty known as "Annex V" as soon as possible. It would place stringent regulations on the discharge of garbage from U.S. ships worldwide and foreign vessels within U.S. waters. Write to:

   The Honorable John D. Negroponte
   Assistant Secretary for Oceans and
   International Environmental &
   Scientific Affairs
   Department of State
   Washington, D.C. 20502

Frontera Audubon September dates:
4 September (Thursday) — Board meeting at Santa Ana NWR, 1930 (7:30 p.m.)
18 September (Thursday) — General meeting (topic and site to be announced), 1930

Continued from page 3

MEdICINAL USES. According to Standley (1930-1936, p. 1028), "The plant is much used locally in medicine, emetic, antisyphilitic, hemostatic, febrifuge, diuretic, laxative, vulnerary, sudorific, tonic and astringent properties being ascribed to it. It is employed most commonly for syphilitic affections. The leaves are said to contain 9 per cent of a bitter principle, nesine, and about 14 per cent of a resin, the latter being the active principle. If the juice or a decoction of the plant is taken internally it is said to produce a mild and pleasant intoxication, during which all objects appear to be yellow."

REMARKS. The genus name, Heimia, is in honor of Dr. Heim (Geheimerath), of Berlin, who died in 1834. The species name, salicifolia, refers to the willow-like leaves.

Hachinal resembles Elbowbush (Forestiera angustifolia) and the presence of flowers or fruit greatly facilitates the identification. The NPP rates Hachinal as a threatened species in the lower Rio Grande Valley (The Sabal 3(4):6).

A rare, peripheral shrub found in riparian habitat along the Rio Grande, Hachinal ranges just north of the Rio Grande into the United States.
Dr. John Fucik

In the Spring of 1982, a small group of twelve individuals met around a table to share concern about the under-appreciation and over-destruction of the lower Rio Grande Valley's native flora. One of the twelve was Dr. John Fucik. Through July 1986, the Native Plant Project has had over 140 members, but few stand out like John Fucik.

Dr. Fucik was elected President and ably held office until he departed for Jordan. He represented the Native Plant Project before garden clubs, civic groups, and conservation organizations; at fairs and plant sales; and at conferences and Native Plant Society meetings. He authored newspaper articles and journal papers on the Native Plant Project's behalf. He drew up numerous landscaping plans such as for the Valley Nature Center, Santa Ana National Wildlife Refuge's parking lot islands, churchyards, and residential yards. No one but Dr. Fucik himself knows all he did on behalf of the Native Plant Project which could be listed here. His leadership, his expertise, his humor, and his grace have been missed.

Be it RESOLVED that, on this fifteenth day of August, 1986, the Board of Directors of the Native Plant Project elects Dr. John Fucik to HONORARY LIFE MEMBERSHIP for his extraordinary service contributions to the Native Plant Project.

NATIVE PLANT SOCIETY: COMING OUTINGS: BEXAR AUDUBON SOCIETY

ANNUAL SOUTH TEXAS EVENT (November 21-23, Susan Rust 826-4698) This will be the 4th year of this joint NPS/EAS trip to South Texas and as usual we will be joined by members of Frontera Audubon and the Native Plant Project. Participants will arrive at South Padre Island on Friday to settle in and go on a moonlight dune walk. Saturday will include an introduction to South Bay ecology and a tour of the new marine laboratory, a visit to the clay loamas, an insiders tour of the Gladys Porter Zoo, a seafood pigout, and a presentation on the proposed Playa del Rio development. We will spend Sunday morning on a behind the scenes exploration of Laguna Atascosa NWR which will include some excellent birding and botanizing as well as an update on some of the wild cat and habitat research being conducted there.

The trip will cost $20.00 this year which includes park admission, shelter space, breakfasts (I promise to have the homemade breads this year), and admission to the zoo. Reservations are on a first come, first serve basis and limited to 30 people. To hold your reservation, checks must be received by November 1. For more details call 826-4698.

We hope that members of the Native Plant Project, Frontera Audubon, and other area environmentalists will again plan to join us for all or part of this annual event.
LOWER RIO GRANDE VALLEY'S RIPARIAN HABITAT

Although the lead article makes no mention of the lower Rio Grande Valley, its pertinence here cannot be overstated. Riparian habitats here share the two stated qualities: (1) they are of great ecological value and (2) they are still disappearing. The data pertain: "In some flood plains, only five percent of the natural vegetation remains." The listed causes and threats are relevant: conversion to urban and agricultural uses and construction of dams and reservoirs. Valley flood control levees and irrigation canal and drainage ditch right-of-ways are aptly described by the caption, "Stipped of trees, bushes and other cover, there's no use looking for wildlife along the channel". The article also describes the damage done by dredging and spoil deposition. The imperiled wildlife mentioned, for the most part, have fairly wide ranges in the USA; much of the lower Rio Grande Valley's wildlife is unique in the United States, not found anywhere else in the country. The article closes by pointing out the critical need for restoration of riparian habitats. Revegetation precedes in the lower Rio Grande Valley — the only positive aspect of the article's content.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN

In 1976, Congress mandated the Bureau of Land Management (BLM) to (1) inventory its roadless areas of 5,000 acres or larger and recommend additions to the National Wilderness Preservation System and (2) designate and protect Areas of Critical Environmental Concern (ACECs). The BLM has dropped its feet. The lawmakers defined ACECs:

The term ... means areas within the public lands where special management attention is required (when such areas are used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural resources.

In other words, ACECs are special places of exceptional scenic beauty or biological diversity, or CONTAINING CRITICAL HABITAT FOR WILDLIFE OR RARE PLANTS or NATURAL SYSTEMS SUCH AS RIVERS AND THEIR RIPARIAN ZONES and delicate bay ecosystems.

Unfortunately, this mandate does not apply to Texas. As the Republic of Texas negotiated to become part of the United States, the U.S. Congress declined to accept Texas' debts and Texas retained both its public debt and public domain. Thus, all lands owned by the USA in Texas have been purchased subsequently. The National Audubon Society has asked its local chapters to go to work to make ACECs a priority in states with federal public domain.

Although the ACEC mandate can not be applied by BLM in Texas, the concept aptly fits portions of the lower Rio Grande Valley. The environmental community could join forces, refer to an area as an ACEC and work towards its protection under the state park system, National Park Service (national preserve), National Wildlife Refuge System, or combination of these. Uniting efforts behind an appropriate terminology could further efforts to protect habitat. There exists no roadless area of 5,000 or more acres in the lower Rio Grande Valley to be referred to as "Wilderness". An area such as the one near the Brownsville Ship Channel with its problem of excessive human recreational use cannot qualify as a wilderness regardless of acreage.
The application of the Water Resources Act of 1965 by the Water Resources Board of New Mexico, with the assistance of the National Wildlands Project, has led to the development of several projects for the protection and restoration of riparian habitats in the state. The National Wildlands Project is funded by the U.S. Forest Service and aims to protect and restore riparian habitats, which are critical for biodiversity and ecosystem health. Although the Tennessee-Tombigbee Waterway has faced challenges, the project has made significant progress in recent years, with the completion of several key projects.

Overfishing by Invasive Species

The Tennessee-Tombigbee Waterway is a major waterway in the United States, spanning several states and providing important ecological and economic benefits. However, overfishing and the introduction of invasive species have posed significant challenges to the waterway's health and sustainability. The Tennessee-Tombigbee Waterway is a critical habitat for many species, and efforts are underway to restore and protect these vital ecosystems.

Riparian Habitats

Riparian habitats are crucial for the health of waterways and the ecosystems they support. These areas provide habitat for a wide range of plants and animals, and play a vital role in maintaining the ecological balance of waterways. Efforts to protect and restore riparian habitats are essential for the long-term health of waterways and the communities that depend on them.

Conclusion

The protection and restoration of riparian habitats is a critical issue for the future of waterways and the ecosystems they support. Efforts to protect and restore these habitats are essential for maintaining the health and biodiversity of waterways, and ensuring the continued well-being of the communities and species that depend on them.
President Waggener called the general meeting to order at 1940 on 11 July in the auditorium of the Weslaco library. The 60 attending included 21 members and 39 guests.

President Waggener announced that 1986 white-wing counts (472,000 doves) were up a third over 1985 counts (360,000) and very near the 20-year-average of 475,000. Texas Parks and Wildlife Department will probably set a season at the end of July. In answer to a question, he said if enough brush was bought for a half-million white-wings, 8-10,000 more acres would need to be purchased with stamp money.

James Chapman introduced the speaker, Don Hockaday of Pan American University's Coastal Studies Laboratory. Hockaday showed slides, described the South Bay area, and discussed previous perturbations. He said that South Bay had greater value than the Laguna Madre; the ratio of marsh to open water is higher in South Bay and lower in the Laguna Madre. Disturbance to the Brazos Island dunes and their plant communities would cause the dunes to blow into South Bay.

President Waggener thanked the speaker for an interesting meeting, turned the discussion over to James Chapman, and left the auditorium. Chapman reviewed the proposed development, the need for Army Corps of Engineers permits (a lengthy process), the water line being installed from Brownsville, and the giveaway of Brazos Island State Park without input from the general public. The GLO is to hold a hearing at 1000 on 24 July 1986 on the developers' request for a road right-of-way through the park site.

Chapman wanted the NPP on record as opposing a development so destructive to the environment. Chance suggested the NPP speak out in favor of preserving the area as it is, rather than second guess what their well publicized plans are.

CHANCE MOVED, GARDNER SECONDED, THE NPP FAVORS PRESERVING THE WILDLIFE VALUES AND HABITAT OF THE AREA EAST OF THE PRESENT BROWNSVILLE URBAN DEVELOPMENT AND FARMED LAND AND BETWEEN THE BROWNSVILLE SHIP CHANNEL AND RIO GRANDE, EXTENDING TO THE GULF OF MEXICO. A petition referring to about a quarter of the discussed area (Brazos Island and South Bay), plus a large area north of the ship channel, was substituted for the motion. The petition read, "WE BELIEVE THAT THE COASTAL AND RIVER WILDERNESS AREAS OF SOUTHEASTERN CAMERON COUNTY ARE EXTREMELY VALUABLE TO THE PEOPLE OF TEXAS AND TO THE REST OF OUR COUNTRY. WE SUPPORT THE CREATION OF A NATIONAL PARK OR REFUGE FROM THE RIO GRANDE TO BAHIA GRANDE, INCLUDING SOUTH BAY AND BRAZOS ISLAND. BY PRESERVING THE WILDLIFE, HISTORICAL, AND ARCHEOLOGICAL VALUES FOUND HERE, AND NO WHERE (sic) ELSE, WE WILL ENHANCE OUR NATURAL HERITAGE FOR THE GENERATIONS TO COME, AND WE WILL BENEFIT THE LOCAL & REGIONAL TOURISM AND FISHERIES INDUSTRIES IMMENSELY. WE APPRECIATE YOUR SUPPORT." The petition carried 18-0, with Ideker, Vora, and Waggener abstaining.

Everyone went home.
The Board of Directors of the Native Plant Project met at Santa Ana National Wildlife Refuge on 15 August 1986. The Secretary called the meeting to order at 1935 and turned it over to the Vice President on his arrival a few minutes later. Nine (9) Directors (Joseph Chance, James Chapman, DeWayne Hodges, Joe Ideker, Robert Lonard, Jean Anne Pearcy, Robert Schumacher, A. Clayton Scribner, and Lynette Scribner) and five (5) members and guests (Linda Ann Gardner, Mrs. Lonard, William MacWhorter, and Richard Pearcy and son) attended.

Lonard wrote to the San Antonio Botanical Gardens. Paul Cox and Patty Leslie are to drive down and speak on 12 September presenting a program on the current status of SABG and provide information on getting an ARBORETUM started. They will be looking for seed for their gardens. The Lonards will put one up and the Scribners the other. A.C. SCRIBNER MOVED, CHAPMAN SECONDED, THAT THE NPP PROVIDE AN HONORARIUM OF $100 PLUS ANY OF LONARD'S EXPENSES; MOTION PASSED UNANIMOUSLY. The September meetings will be at 1830 (Board) and 1930 (general) at La Lomita on 12 September.

IDEKER MOVED, CHANCE SECONDED, THAT GARDNER BE AUTHORIZED TO PURCHASE A FERTILIZER ATTACHMENT (FOR A HOSE) AND FERTILIZER FOR USE ON THE NPP'S PALMS AND THE NPP REIMBURSE HER; MOTION PASSED UNANIMOUSLY.

Ideker read the resolution appearing on page 5 of The Sabal 3(6). A.C. SCRIBNER MOVED, CHAPMAN SECONDED, TO PASS THE RESOLUTION ELECTING FUCHS AN HONORARY LIFE MEMBER; MOTION ENTHUSIASTICALLY AND UNANIMOUSLY CARRIED.