

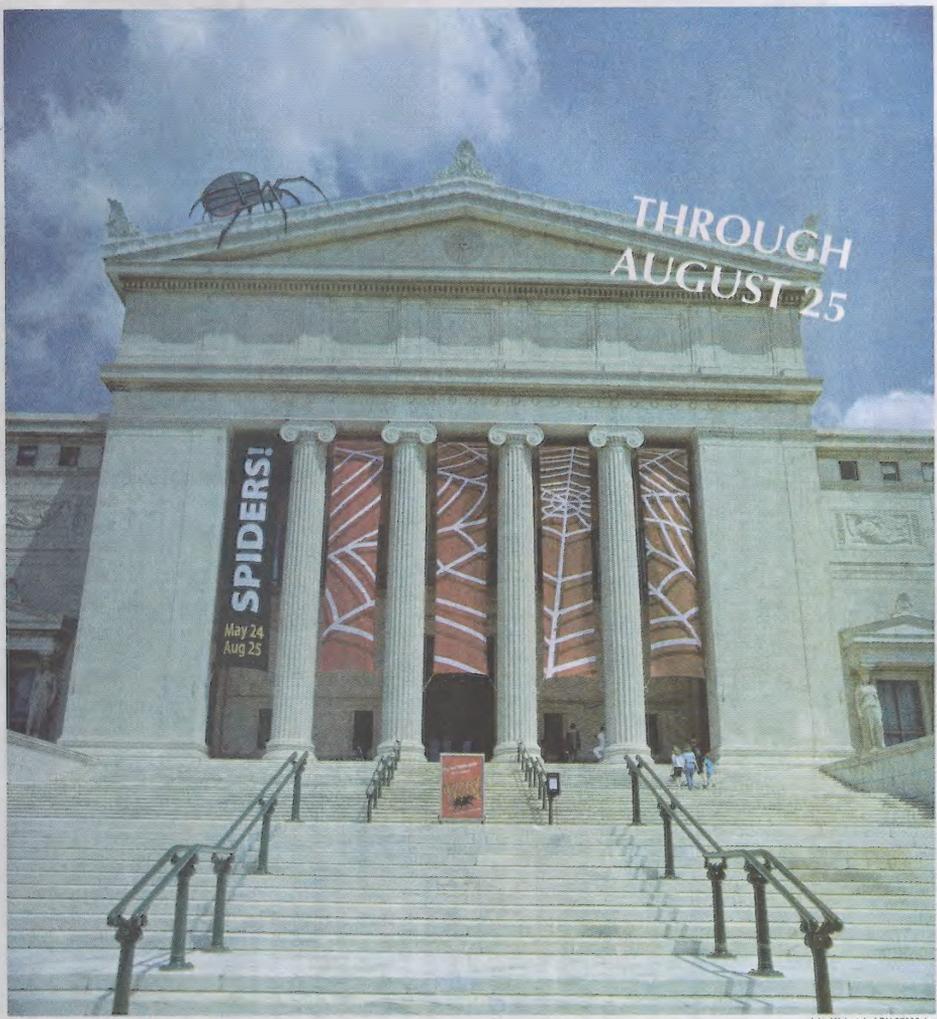
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In the Field

The Bulletin of The Field Museum

July/August 1996



John Weinstein / GN 87902.4c

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July/August 1996

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The Field Museum
Exploring
The Earth And Its
People

The Field Museum goes Hollywood with the release this summer of two movies filmed here.

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A complete schedule of July/August events, including prairie and wetland excursions.

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A new book by Field Museum zoologists examines all 4,037 species of Neotropical birds.

SNAILS AS A GUIDE TO OCEANIC MICROORGANISMS

Museum collections of snails help scientists learn about the distribution and ecology of tiny marine creatures that live on or within the shells in the sunless depths of the ocean.

Article, page 10



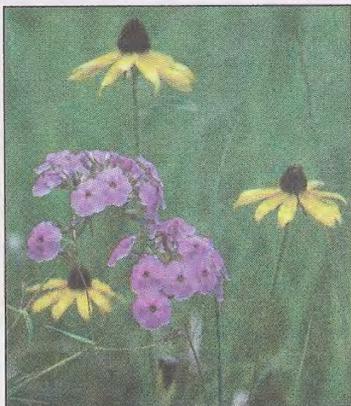
CHANGEABLE WEATHER, CHANGEABLE PRAIRIES

By William Burger
Department of Botany

The standard joke in Chicago (and around the Midwest) is that if you don't like the weather, wait: it will change. With the possibility of cold air masses coming down from Canada, hot dry air out of the southwest, and warm moist air from the Gulf of Mexico, the Midwest regularly experiences dramatic fluctuations in temperature and rainfall.

Not only can the weather change dramatically from week to week, but it often deviates strongly from the norm, month by month and year to year. While our forests are subjected to these same fluctuations, it is usually difficult to see their effects on trees and shrubs. Prairies, in contrast, offer us dramatic visual evidence of their responses to local weather patterns. I have made the mistake of inviting a group of friends to see a prairie at its peak flowering time in early August, only to find that it was a particularly bad year for some of the more colorful species. I should have checked first! The exact same spot that was ablaze with hundreds of brilliantly flowering plants the previous year now looked like little more than a weedy field.

Our spectacle of prairie flowering begins in middle May with shooting stars, golden alexanders, and Indian paint brushes. In June, pucoons, lupines, wild iris, and prairie roses put on a show. Spiderworts, milkweeds and phlox begin in late June and flower into July. Wild quinine, wild bergamot, black-eyed Susan and other yellow composites dominate middle and late July. By early August, the prairie should be displaying its most colorful plumage, with purple blazing stars and swarms of sunflowers the major attractions, followed by the goldenrods. Finally, as the grasses begin to turn a golden brown, white or bluish asters and deep blue gentians decorate the prairie from early September to middle October.



William Burger

The season during which a particular species flowers is fairly consistent from year to year, with some species flowering for only a week or so, and others ablaze for more than a month. Beginning with short little plants in May, the five-month sequence ends with some flowers held six feet high. Though this general pattern recurs each year, unpredictable local weather determines who the major players will

be and how bright their display.

Of the 300 or so species that make their homes on our richest prairies, those with really colorful flowers number fewer than 100. Their flowers may have very different form and structure (members of different families) or be quite similar (members of the same genus). Nevertheless, each species does tend to respond in its own way to temperature and rainfall. What may be a good year for one species can be an awful year for another. Spring weather may have strong effects much later in the summer. A few years ago, we had virtually no rain in May and early June. The prairie was noticeably shorter that year, and the blazing stars simply didn't flower. Fields that usually had great swaths of purple were completely devoid of this colorful member of the typical mid-summer panorama.

Gentian populations can be particularly variable. They develop small root systems and live for only one year. But it isn't easy to say whether a good gentian year is based on a large seed-set the year before, or that it was good rainfall and

(Continued on page 10)

Left: Phlox and black-eyed Susan in the Illinois Beach State Park.

Wild iris



William Burger

LETTER FROM MADAGASCAR

Steve Goodman
Antananarivo, Madagascar
7 April 1996

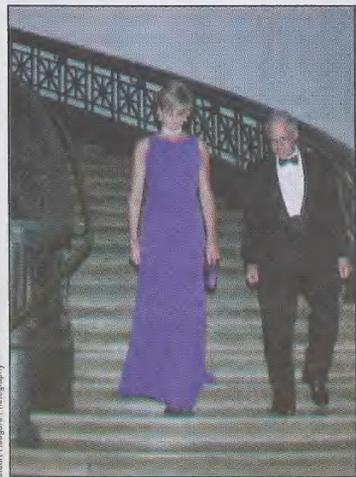
Since arriving here in August 1995 I have been able to spend the majority of my time in the field. In late August Olivier Langrand and I went up to the high mountain zone of the Andringitra reserve, south-central Madagascar, to complete an elevational transect for birds and mammals started in 1993. We had camps at 2,000 and 2,450 meters. The higher camp was just below the summit of Pic Boby (2,550m), the second highest peak on the island. Tree-line on the mountain is about 1,900m. By the time

one arrives at 2,000m there is an expansive plateau with open alpine savanna and occasional small clusters of upper montane forest. The 2,550m camp was mostly in a region of exposed rock, although in the basin below the summit there is a marsh. During our visit to the area it was the end of the winter and even though we were

within the tropics it was incredibly cold. On several nights at 7:30 the dew had already turned to frost and we experienced temperatures down to -7°C . We found numerous interesting animals. Several species of small mammals, particularly a group of endemic insectivores (*Microgale* and *Oryzomys*) occur all the way up to 2,550m. This is the highest elevation they have been recorded on the island, and with their high metabolism and the local extreme temperatures it is amazing that they are able to live in such an inhospitable place. We also found a large population of Benson's Rock-Thrush, a species of

(Continued on page 11)

The summit of Pic Boby (2,550 meters), the second-highest peak on Madagascar. Left to right: Olivier Langrand, a local guide, and Steve Goodman.



PRINCESS DI AT FIELD MUSEUM

Princess Diana is escorted into the June 5 gala at the Museum by Northwestern University President Henry S. Bienen. The event drew 1,300 guests and raised hundreds of dollars for cancer charities. More pictures on page 4.



Olivier Langrand

WHEREWITHAL: THE NECESSARY MEANS



By Willard L. Boyd
President, The Field Museum

The ends never justify the means. But without the proper means we cannot achieve our ends. In the summer of 1893, Edward Ayer scurried around Chicago to find the means to create The Field Museum as the great legacy of the World Columbian Exposition. In the years since, The Field Museum has flourished because of the commitment of Chicagoans who have requested and given the wherewithal needed for an increasingly vibrant and significant center of learning about the earth and its people. Soon we will be seeking your special help to generate the wherewithal to achieve the objectives of our strategic plan, *The Field Museum: Connecting in Its Second Century*. To carry out that plan we are undertaking a \$60 million comprehensive campaign seeking:

- \$13 million — to maintain and build the annual operating support so vital for the Museum's ongoing programs which serve our many publics on a daily basis.
- \$20 million — to increase our endowment so that it will continue to provide 20 percent of our operating budget as it has over the past 30 years.
- \$27 million — for crucial capital projects which involve infrastructure renovations, collections care and conservation, research facilities and exciting exhibits which will bring new knowledge to the public.

At my age, I consider our 1921 Museum building of nearly one million square feet to be young. The fact remains that it is necessary to

replace the roof, plumbing, and electrical wiring. Our high-pressure boilers are forty years old and our air conditioning chillers are antiquated.

Collections are the grist for our intellectual mill. To help ensure that these invaluable objects are available to scholars now and far into the future, we must consolidate and improve their storage, especially for our alcohol-preserved zoological objects and our culturally significant anthropological collections. The Campaign will also benefit the latter by constructing state-of-the-art conservation laboratories that will enable our outstanding staff to perform the crucial work necessary to preserve these fragile collections.

We also want to make the collections more accessible. Our Campaign calls for storing collections data on computers so that the information they contain is "just a modem-away" from scholars and youngsters alike. At present our computer hardware is obsolete and transferring this data is a monumental task. We are encouraged in this area because The Field Museum's World Wide Web site is now cited as a national museum leader, and more than a quarter million visitors have come through this "electronic door" this year alone.

It is imperative for us to apply new research techniques to our collections and the Campaign will enable us to do so. Much of The Field Museum's collection was assembled before DNA was discovered. Nevertheless, we can extract DNA from the environmental collections. Similarly, anthropologists are able to use molecular markers in studying historical patterns of human migrations, and geological dating enables us to study changes in the world's geology and biology over extraordinary spans of time.

The purpose of our collections-based research is to provide greater public knowledge about environmental and cultural change. Exhibits are our classrooms. With your help, great changes have been made in our permanent exhibits during the past decade. The time has come for us to reenter the special exhibit arena in order to bring new knowledge on a continual basis to our publics. To do so, we need a new exhibition center adjacent to Stanley Field Hall. It will be versatile enough to mount an art exhibit, recreate a rain forest, or install an army of terra cotta soldiers.

We also plan two new permanent exhibits which will focus on present and future Museum-based research. The first is "Living Together: Common Concerns, Different Responses." It will provide an introduction to the Museum's cultural exhibits just as "Nature Walk" introduces visitors to the environmental exhibits. "Life Underground" will be the largest exhibit we have ever undertaken. It will be an adventure into the biological world beneath our feet. In the next decade, our curators will be unlocking the many secrets of the underground.

This \$60 million Campaign will provide the crucial wherewithal necessary for The Field Museum to serve its many publics in the years to come. A campaign committee of 57 outstanding volunteers, chaired by Judy Block, will lead us in this Campaign. In my retirement, I will serve as the honorary chairman of the Campaign. I am ever grateful to each of you for the steadfast support you have given the Museum in the past, and I look forward to being your partner in keeping the Museum at the forefront as a center of learning about the world's cultures and environments.

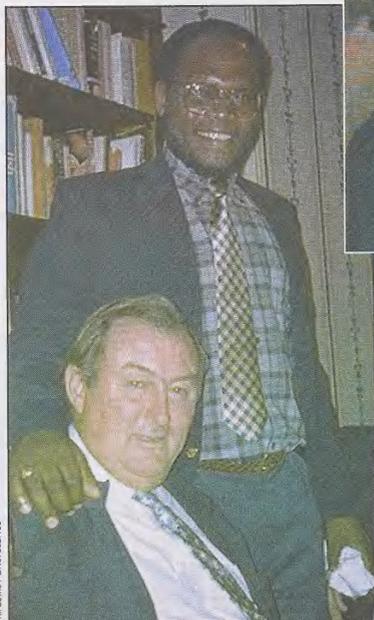
LEAKEY RECEIVES AWARD OF MERIT



Richard Leakey, the Kenyan paleontologist, conservationist, and politician, receives the Award of Merit from Founders' Council co-chair Pam Walter. At left, Leakey with his former student Chapurukha Kusimba, who is now a Field Museum curator. Below, the crystal globe from Tiffany that is part of the Award of Merit.

The award is given from time to time to recognize outstanding achievement in bringing to public attention issues in evolutionary and conservation biology.

In a public lecture, Leakey observed that "poaching and agriculture have forced elephants into small areas, and they destroy the forest" and threaten people's livelihoods: "It's one thing to have a squirrel in your garden," he said. "It's quite another to have an elephant in your garden."



In the Field

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The Field Museum
Exploring
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UPSTAIRS, DOWNSTAIRS

ASIAN CERAMICS CONFERENCE

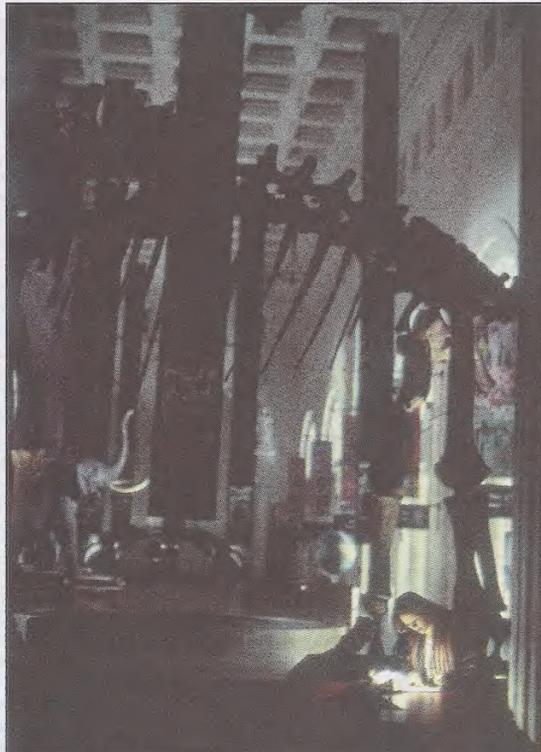
Smiling for the camera during a Collections Committee reception at the second annual Asian Ceramics Conference are, from left, Bennett Bronson, curator of Asian anthropology and co-chair of the conference; Carolyn Moore, associate in anthropology; Shinichi Fukagawa, president of the Koransha Corp., a ceramics maker in Japan; and Chuimei Ho, adjunct curator of anthropology and co-chair of the conference.

At right, Akiko Saito demonstrates the form and function of ceramics in Matcha, a Japanese tea ceremony.



Diane Alexander White / GMR1995-94c

Diane Alexander White / GMR1995-504c



Richard Freeman

SUMMER AT THE MOVIES

Above, Penelope Ann Miller as a museum curator searching for the identity of a mysterious predatory beast in *The Relic*.

The Field Museum stars in two feature films opening this summer: *The Relic*, starring Penelope Ann Miller, Tom Sizemore, Linda Hunt, and James Whitmore; and *Chain Reaction*, with Keanu Reeves and Morgan Freeman.

In *The Relic*, Miller plays an evolutionary biologist using DNA technology to try to identify a mysterious creature that is killing people in her museum in advance of the opening of an exhibit on superstition. Sizemore plays a Chicago cop helping her out, Hunt is the director of the museum, and Whitmore is a world-famous evolutionary biologist who provides the key to the reptilian creature's proper classification. The film is directed by Peter Hyams. The cast and crew were on location in the Museum for three weeks last October, and re-created the curators' offices and laboratories on a Hollywood sound stage for the remainder of the film.

Chain Reaction is an action-adventure film in which a physicist (Rachel Weisz) and her team's machinist (Keanu Reeves) go on the run after they are framed for the murder of the team leader and the destruction of their laboratory. The research team had discovered how to produce a cheap, pollution-free form of energy and it appears that somebody out there didn't want them to succeed. Pursued across the country by half a dozen Federal agencies, Reeves and Weisz try to figure out who the real conspirators are, with assistance from Morgan Freeman as the head of a foundation that has backed the research. Several scenes were shot at the Museum and at the University of Chicago. *Chain Reaction* was directed by Andrew Davis.

In addition, *The Ghost and the Darkness*, starring Val Kilmer and Michael Douglas, is scheduled to open in October. The film is based on the experiences of Col. John Henry Patterson, who in 1898 shot two lions in Kenya that had killed 160 members of his railway-building crew. Patterson later sold the pelts and skulls of "the man-eating lions of Tsavo" to Stanley Field, who gave them to the Museum, where they were mounted and are still on display, now in the Rice Wildlife Research Station.

Left, Keanu Reeves and Rachel Weisz on the run in *Chain Reaction*.

THE FIELD MUSEUM CORDIALLY INVITES MEMBERS AND GUESTS TO A BRUNCH LECTURE

"Spiders: The Ingenious Predators"

IN CONJUNCTION WITH OUR SPECIAL EXHIBIT



JOIN US FOR A BUFFET BRUNCH AND CURATOR'S LECTURE. THEN DISCOVER THE FASCINATING WORLD OF ONE OF NATURE'S GREATEST HUNTERS WHEN YOU EXPERIENCE **SPIDERS!**

DR. JOHN KETHLEY, ASSOCIATE CURATOR OF INSECTS

WILL PRESENT A SLIDE LECTURE INTRODUCING SPIDERS AND RELATED ARTHROPODS INCLUDING AN OVERVIEW OF SPIDER BIOLOGY, ECOLOGY, AND BEHAVIOR.

SUNDAY, JULY 21, 1996

11:00 A.M. TO 1:00 P.M.

RICE WILDLIFE RESEARCH STATION

ADMISSION IS \$20 FOR MEMBERS, \$25 FOR GUESTS

RSVP BY JULY 18, 1996 (312) 322-8871

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THE ROYAL VISIT

Photographs by Diane Alexander White

The Field Museum was the site of a gala dinner-dance on June 5 in honor of Princess Diana.

The event raised hundreds of thousands of dollars for cancer charities in the United States and Great Britain. The Princess also attended a seminar on cancer research at Northwestern University, visited patients at Cook County Hospital and the Northwestern University Medical Center, and attended a fundraising luncheon at the Drake Hotel.

Below left, Stanley Field Hall decked out for the gala, which attracted 1,300 people, and, right, Princess Diana arriving at the Museum escorted by Northwestern University President Henry S. Bienen. Ticket prices for the gala ranged from \$500 to \$50,000 for a full table and admission to other events on the Princess's schedule. The elaborate decor and set-up took caterers days to complete.

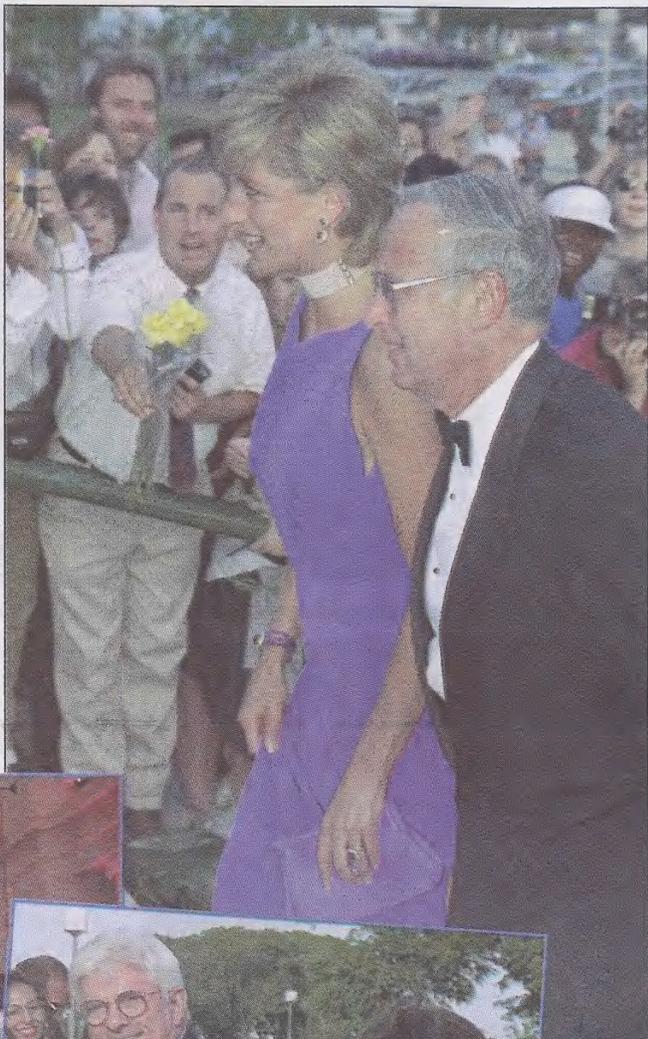
Guests included, left, Delores Jordan, mother of Michael, who carried gifts of Chicago Bulls paraphernalia for the Princess's sons; and, above left, the actor Gene Wilder, widower of Gilda Radner and founder of Gilda's Club for cancer patients and their families and friends, which was one of the beneficiaries of the evening's fundraising. The other beneficiaries were the



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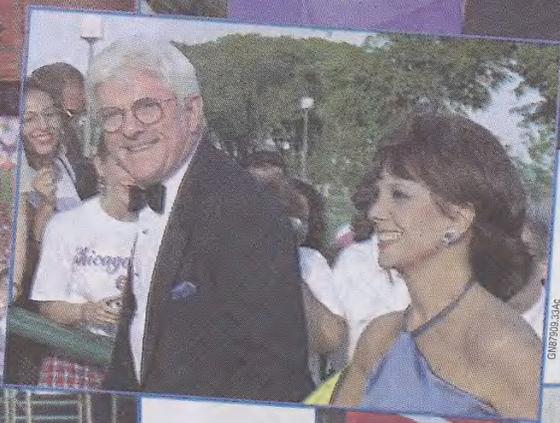
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Robert H. Lurie Cancer Center of Northwestern University and the Royal Marsden Cancer Appeal supporting Royal Marsden Hospital.

Counter-clockwise from above right: Phil Donahue and Marlo Thomas (Donahue got the first dance with the Princess); Tony Bennett rehearsing for his performance at the gala; and, racing up the stairs, madcap Joan Rivers, who later said she was impressed by the Princess and was "sorry I ever called her a tramp."



GN87908.10c



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CALENDAR OF EVENTS

'SPIDERS!' CONTINUES THROUGH AUGUST 25

The special summer exhibit "Spiders!" will run through August 25. The exhibit examines the lifestyle of one of nature's most fascinating and feared creatures and traces its role in nature as well as its relationship with humanity. It puts spiders on a level playing field with other organisms, showing how arachnids deal with the universal basics that all living creatures face — finding food, mating, producing offspring, and defending against predators.

Along with the exhibit, the Museum has planned a full summer of programs, including daily spider activities and special weekend programs. The opening days of "Spiders!" featured visits from the Marvel Comics super-hero, Spider-Man.

The dinner-plate-size Madagascar orb weaver as well as live poisonous brown recluse and black widow spiders are on display.

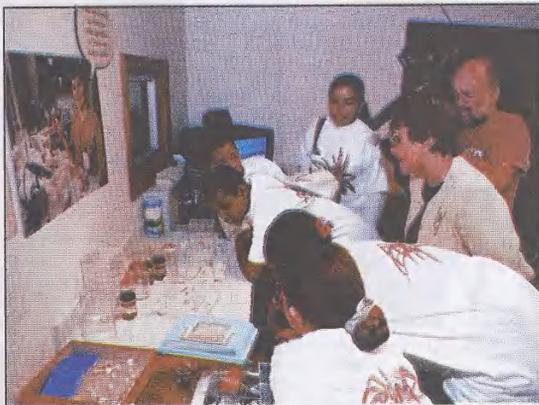
The carnivorous creatures that humans love to hate are actually harmless creatures — except, of course, for the infamous black widow spider and the funnel web spider. The black widow is notorious for her deadly way of killing her mate. But, on the whole, spiders are benefi-

cial in that they eat billions of disease-laden insects like flies and cockroaches. Spiders have a unique way of getting around in their world. The hairs on their bodies serve as their primary sensory faculty, helping them to see and to feel. Spiderize!, an element of the exhibit, adds a new perspective on life from a spider's viewpoint.

Using dioramas, "Spiders!" shows the range of spider sizes and habitats, a spider family tree, and freeze-dried spider specimens. The Museum worked with Marvel Entertainment Group to bring the traveling exhibit to the city.



John Wainstein



John Wainstein

Above, Petra Sierwald, the Museum's expert on spiders, demonstrates for students from Chicago's Bright Elementary School how brown-widow spiders dine on live crickets. Left, Spider-Man showed up for breakfast with Linda Starczyk's sixth-grade class from Bright. The kids had been working on spiders for months, using Field Museum experience boxes, videos, and other materials.

Spider-Man returns to the Museum July 10-12 and July 19-21; limited numbers of free tickets to see him will be available.

Free issues of *Spider*, *Babybug*, *Ladybug*, and *Cricket* will be distributed to Museum visitors the weekend of July 13-14. Cricket Magazine Group has collaborated with the publishers of *Smithsonian* to create a new children's magazine, *Muse*, designed to make children aged 6 to 14 aware of the variety of career opportunities available to them. *Muse* will premiere in October.

FIELD MUSEUM
THE SMART WAY TO HAVE FUN

FROM THE GOOD EARTH

The Field Museum joins the Council for Creative Projects in bringing the photographic exhibit "From the Good Earth" to the Museum; it opens July 10 and runs through October 13. The exhibit celebrates food growing through pictures taken by farmer/photographer Michael Ableman during his excursions over five continents. The vivid images offer glimpses of traditional farming cultures and demonstrates the impact of industrialized agriculture on our own society as well as the cultural and ecological issues industrialization has engendered.

The photo documentary covers traditions that are thousands of years old and shows how modern cultures can work with them to restore the earth through growing food. "From the Good Earth" glimpses the agricultural history shared by many cultures and shows how individuals are reclaiming their agricultural roots, using lessons from the past in ingenious and modern ways to produce food for the future. Ableman, through his camera, illustrates our increased isolation from the land and the environmental problems of large-scale agriculture in the chemical age.

Through poignant fine-art photographs, the exhibit challenges us to rethink our relationship with food, and to see how what we eat is affecting us and the environment. Many of the foods we take for granted are produced in ways that seriously affect our world. Ironically, the common potato, strawberry, loaf of bread, or hamburger can be directly linked to the destruction of the rain forests; nitrate pollution of groundwater; the poisoning of our land, water, and wildlife through the use of pesticides; and, perhaps most urgent of all, the rapid depletion of the earth's topsoil—upon which all life depends.

Food became tainted as a result of modern-

ization and mechanization. Modern orchards and fields are designed to produce great quantities of inexpensive food. To accomplish this, there must be high levels of industrial efficiency. The fields are leveled and rows are spaced with precision to accommodate machinery. The earth is saturated with synthetic fertilizers. Then it is pumped with fumigants and doused with herbicides to inhibit soil-borne disease and retard weed growth. Crops are sprayed and dusted with a variety of insecticides in an effort to maintain high yield and guarantee consistency of appearance in the supermarket.

"From the Good Earth" includes 80 color



images of agricultural exploration from around the world. The world's smallest farms and gardens, grand agricultural landscapes, and traditional and modern farmers are among Ableman's subjects. Settings include lush diversified farms in Switzerland, Germany, the Netherlands, England, and the United States; market and winery gardens in France and California; and ingenious food gardens in various settings such as urban lots in Philadelphia and New York, a San Francisco jail, a suburban London backyard, and other sites.

The exhibit was organized by the Council for Creative Projects in New York.

— Rhonda Jones

Above, a community garden in Philadelphia thriving near a decaying elevated railroad track where drugs are openly exchanged. Left, a Peruvian farmer carries home mustard weeded from a barley field. It will be feed for his donkeys.

CALENDAR OF EVENTS



Lynn Terr

Lynn Terr



Zydeco musician Alphonse Bois-Sec Ardoin will be joined by his son, Morris, and grandsons Gus, Alphonse Paul, and Dexter (above) at the Cajun & Zydeco Music Festival July 20. The Cajun Aces headline the Cajun side of the program.

7/13 Saturday Workshop: Buffalos

1 - 3 p.m. Where would you go to get things like fly swatters, rope, snow sleds, and spoons? Native Americans turned to the buffalo to provide meat, hides for blankets, and bone for toys and tools. Come listen to the story of the mud pony and draw a pictograph that tells your own story. Adults and children grades K-3. \$10 per participant (\$8 per member participant). Call (312) 322-8854 for more information.

7/15 Monday Worlds Tour Camp

9:30 a.m. - 2:30 p.m. Space may still be available for the collaborative day camp offered by The Field Museum, the Shedd Aquarium, and the Adler Planetarium. Four-week long Monday-Friday sessions begin today for children age 5-14. Don't miss the fun! \$195 (\$175 members). Call (312) 322-8854 for further information.

7/19 Friday/Saturday Educators' Overnight

Educators, come stay a night in the Museum. Venture into the wild and explore the world of insects. Come learn how to do classroom activities and visit the summer exhibit, "Spiders!" The overnight includes a totebag, handouts, two workshops, classroom activity fair, evening buffet, continental breakfast, storytelling, and more. Registration \$55. Reserve your space now; registration deadline is July 12. Call (312) 922-9410 ext. 365 for more details.

7/20 Saturday Cajun & Zydeco Fest

7:30 p.m. - midnight Celebrate the rich cultural heritage of Southern Louisiana with music, fun, and dance at the Cajun and Zydeco Music Festival featuring legendary Creole performers Alphonse Bois-Sec Ardoin and his family and the Chicago Cajun Aces. Ardoin has played in festivals here and abroad while his family accompanied him at the Smithsonian and Carnegie Hall. The fest complements the exhibit "Cajun Music and Zydeco," a photographic exhibition of Philip Gould's work on display in the Webber Gallery until August 4. \$20 (\$15 members). Food and beverages available for purchase. Call (312) 922-9410 ext. 861 for more information.

8/3 Saturday Mardi Gras in The Field

10 a.m. - noon *Fait les bon temps rouler!* Let the good times roll! Mardi Gras is a special time of celebration in New Orleans complete with parades, festivities, and dancing. We'll see some of the honored musicians who play the Cajun and Zydeco music of Louisiana in a special photo exhibit. Music, face-painting, mask making, and our own family-style "hurricanes" will complete our festivities as we look into the cultures of Louisiana. Adults and children grades K-4. \$10 per participant (\$8 per member participant). For more information: (312) 322-8854.

8/3 Saturday Wetland Birding

8:30 a.m. - 4 p.m. Nature Network's Paul Baker takes you on a day-long hike, with emphasis on bird-watching, through Moraine Hills State Park near McHenry, Illinois. More than 100 species of birds have been identified in the park. We'll hike the trails enjoying a diversity of habitats as we look for a number of bird species. Bring a bag lunch, beverage, field guide, and don't forget the binoculars. Departs from the West Door. \$40 (\$35 members). Call (312) 322-8854 for further details.

8/10 Saturday Navajo Arts Lecture

2 p.m. Pearl Sunrise is a full-blooded Navajo and third-generation weaver, singer, potter, and storyteller. She is Professor of Fiber Arts, Fashion Design and Navajo language and culture at the Institute of American Indian Arts in Santa Fe, New Mexico. Through slides and personal stories, she will talk about details of her life and work, describing the importance of Navajo traditions to her own artistic expression. \$12 (\$10 members). Call (312) 322-8854 for more information.

8/10 Saturday Summer Prairie Hike

9 a.m. - 4 p.m. Join the Museum's Phil Hanson on an excursion that will heighten your awareness of the Illinois landscape and the people who lived in the area over 200 years ago. You'll visit three sites: Lockport Prairie on the edge of the Des Plaines River floodplain; Vermont Prairie Cemetery, nearby; and the Isle à la Cache Museum where you will learn about this area's cultural heritage. Wear comfortable shoes, bring sun protection, lunch, and beverage. Departs from West Door. \$40 (\$35 members). For further information, call (312) 322-8854.

8/10 Saturday Spiders Workshop

10 - 11 a.m. Spider fun for adults with a three- or four-year-old. Visit our summertime exhibit "Spiders!" to see through spider eyes, learn how webs are woven, and how spiders benefit people. Later, learn about spider body parts when you make a toy spider. \$14 (\$12 members) for one adult and one child. Call (312) 322-8854 for more information.

8/24 Saturday Amazing Spider Mask

10 a.m. - noon People make and wear masks for many different purposes. Learn how masks are used in different parts of the world from an expert mask maker and watch her special performance. Later, make a spider mask and visit the exhibit "Spiders!" Adults and children grades 3-6. \$10 per participant (\$8 per member participant). Call (312) 322-8854 for more information.

8/24 Saturday Botanical Exploration

9 a.m. - 2 p.m. Botanist Thomas Lammers will help you learn the characteristics of the most common plant families during this day-



long workshop. Classroom lectures, live as well as dried specimens, slides, and a visit to the Museum's extensive herbarium are included. \$40 (\$35 members). Call (312) 322-8854 for more information.

MEMBERS' NIGHT

Diane Alexander White / GN87831.204c

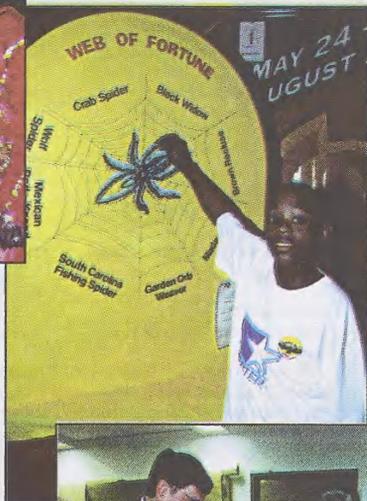


Diane Alexander White / GN87829.134c



Diane Alexander White / GN87832.29c

Diane Alexander White / GN87832.29c

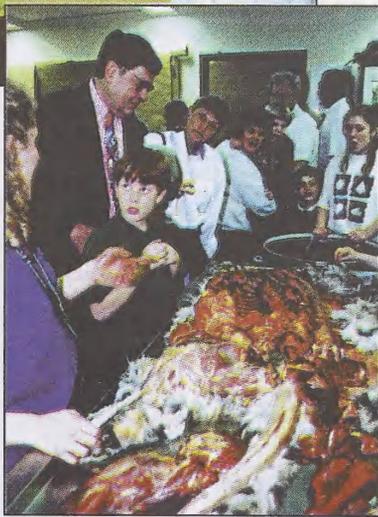


Diane Alexander White / GN87832.29c

John Weinstein / GN87838.354c



John Weinstein / GN87835.25c



Diane Alexander White / GN87830.234c

The 45th Annual Members' Night on May 3 drew a crowd of more than 11,000 Museum members and their families and friends and produced record sales in the Museum store. Members enjoyed live musical performances by the Midway Ramblers Cajun Band and Guy Lawrence & Chideco Zydeco as well as a dance performance by Khalidha's North African Dance Experience. Khalidha teaches ancient Egyptian dance at the Museum. The annual event gives members of the Museum the opportunity to meet curators, scientists, exhibit developers, and educators, all of whom inspire imagination and teach about the diversity of the earth and the people who inhabit it. Members also get a behind-the-scenes look at how and where exhibits are designed.

Clockwise from top left: Volunteer Bill Duvall frightened visitors with a lion skull. Jim Nesci of Orland Park, Illinois, a member of the Chicago Herpetological Society, entertained youngsters of all ages with the help of Bubba, a very much alive alligator. A young visitor took his chances with the Web of Fortune; whether he drew the dreaded Black Widow was not recorded. President Boyd joined members who watched with fascination or revulsion or both as mammal preparators skinned the carcass of a snow leopard.

William Simpson, chief preparator of fossil vertebrates, demonstrated the finer points of extracting specimens from rock. Guy Lawrence & Chideco Zydeco entertained from the main stage, and the members of Khalidha's North African Dance Ensemble posed for their portrait after a performance.

Become a Member of The Field Museum and receive these benefits:

- Free general admission
- Free priority admission to "Life Over Time"
- Priority admission to special exhibits
- Free coat checking and strollers
- Invitation to Members' Night
- Free subscription to *In the Field*
- 10% discount at all Museum stores
- 10% discount at Picnic in the Field
- 13-month wall calendar featuring exhibit photographs
- Reduced subscription prices on selected magazines
- Opportunity to receive the Museum's annual report
- Use of our 250,000-volume natural history library
- Discount on classes, field trips, and seminars for adults and children
- Members-only tour program
- Opportunity to attend the annual children's Holiday Tea
- Children's "dinosaur" birthday card

MEMBERSHIP APPLICATION

New Members only. This is not a renewal form.

Please enroll me as a Member of The Field Museum

Name _____

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GIFT APPLICATION FOR

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MEMBERSHIP CATEGORIES

- Individual – one year \$35 / two years \$65
- Family – one year \$45 / two years \$85 (Includes two adults, children and grandchildren 18 and under.)
- Student/Senior – one year \$25 (Individual only. Copy of I.D. required.)
- Field Contributor – \$100 - \$249
- Field Adventurer – \$250 - \$499
- Field Naturalist – \$500 - \$999
- Field Explorer – \$1,000 - \$1,499

All benefits of a family membership — and more

Founders' Council – \$1,500

Send form to:
The Field Museum, Roosevelt Road at Lake Shore Drive, Chicago, Illinois 60605

VISITOR PROGRAMS

Friday, July 5

10am - 1pm **Native American Tools activity.** Enjoy a game of chance or skill as you play traditional Native American Games.

Saturday, July 6

11am & 1pm **Highlights of The Field Museum tour.**
11:30am & 2:30pm **The Aztec Empire and Its Predecessors tour (English.)** Find out about the diversity of languages and cultures from this region and how these cultures built a mighty empire founded 3,000 years ago.
1pm **El Imperio Azteca y Sus Predecesores tour (en español).** Aprende sobre la diversidad de lenguas y culturas de esta región y cómo estas culturas construyeron un poderoso imperio que se fundó hace 3,000 años.

Sunday, July 7

11am & 1pm **Highlights of The Field Museum tour.**
11:30am & 2:30 pm **The Early Maya Civilization tour.** Explore the Maya's ancestors' art, architecture, technical innovations, math and writing systems, and find out more about the two million people in Mexico, Guatemala, Belize, El Salvador and Honduras who still speak the Mayan language and maintain Mayan traditions.
1pm - 3pm **Adinkra activity.** Traditional designs from Ghana represent different African proverbs. Stamp your favorite!

Thursday, July 11

10am & 12noon **Africa Exhibit tour.** Learn about the diversity of Africa's people, their history, art, technology, and their contributions to the Americas.
12:45pm **The Aztec, The Maya and Their Predecessors tour.** Learn about the diverse and complex Pre-Columbian cultures of Mexico and Central America.

Friday, July 12

10am - 1pm **Terrific Teeth activity.** Can teeth tell you what an animal eats? Take part in this fun activity and find out!

Saturday, July 13

1:30 p.m. **Tibet Today and a Faith in Exile slide lecture.** Learn about Tibetan refugees in India, Nepal and elsewhere. Witness the dedication ceremony of a Himalayan Buddhist chorten in Indiana by His Holiness, the Dalai Lama

Monday, July 15

1pm **Anansi stories told by Shanta.** Hear West African tales of the tricky spider named Anansi.
2pm **American Indian Spider Stories** as told by Florence Dunham of the Mohawk people.

Highlights of The Field Museum tours are offered Monday through Friday, at 11 a.m. and 2 p.m. (except Tuesdays during the month of July). Visit some of the exhibits which make this museum one of the world's greatest. Find out the stories behind the exhibits. Check weekend listings for Saturday and Sunday Highlights tours.

Sunday, July 14

1pm **Anansi stories told by Shanta.** Hear West African tales of the tricky spider named Anansi.
2pm **American Indian Spider Stories** as told by Florence Dunham of the Mohawk people.

Thursday, July 18

11am & 2p.m. **Web Spinning Tales storytelling.** From Arachne to Anansi to Sider-Man, people have always been fascinated by spiders. Listen to a variety of stories from many parts of the world that describe spiders and their amazing feats and strange ways.
12:45 pm **The Aztec, The Maya and Their Predecessors tour.**

Saturday, July 20

11am & 2pm **Web Spinning Tales storytelling.**

Sunday, July 21

11am & 1pm **Highlights of The Field Museum tour.**
11:30 & 2:30 **The Aztec Empire and Its Predecessors tour.**
1pm - 3pm **African Metals activity.** Learn about the ancient African art of metallurgy.

Monday, July 22

11am & 2pm **Web Spinning Tales storytelling.**

Thursday, July 25

10am & 12noon **Africa Exhibit tour.**

11am & 2pm **Web Spinning Tales storytelling.**
12:45pm **The Aztec, The Maya and Their Predecessors tour.**

Friday, July 26

10am - 1pm **Rocks and Minerals Match activity.** Try to match minerals with the familiar products they produce.

Saturday, July 27

11am & 1pm **Highlights of The Field Museum tour.**
11am and 2pm **Web-spinning tales storytelling**

11:30 & 2:30 **The Early Maya Civilization tour (English.)**

1pm **La Civilización Antigua Maya tour (en español).** Explore el arte, la arquitectura, las innovaciones tecnológicas, los sistemas de matemáticas y escritura de la civilización antigua maya. Aprende más sobre los dos millones de personas que viven en México, Guatemala, Belice y Honduras que todavía hablan el idioma maya y mantienen sus tradiciones.
1:30pm **Tibet Today and Bhutan, Land of the Thunder Dragon slide lecture.** A slide presentation which takes you to Lhasa and other places now open to tourists in Tibet. Also travel to the small Himalayan country of Bhutan.

Sunday, July 28

11am & 1pm **Highlights of The Field Museum tour.**
11:30 & 2:30 **The Aztec Empire and Its Predecessors tour (English.)**
1pm **El Imperio Azteca y Sus Precesores tour (en español).**

Monday, July 29

11am & 2pm **Web Spinning Tales storytelling.**

Thursday, August 1

10am & 12noon **Africa Exhibit tour.**
11am & 2pm **Web Spinning Tales storytelling.**

Friday, August 2

10am - 1pm **Pareus activity.** Try out a Pacific Island style as you wrap a pareu-style dress.

Saturday, August 3

10am - 1pm **Adinkra activity.**
11am & 1pm **Highlights of The Field Museum tour.**
11am & 2pm **Web Spinning Tales storytelling.**

Sunday, August 4

11am & 1pm **Highlights of The Field Museum tour.**
11:30am & 2:30pm **The Early Maya Civilization tour.**

Monday, August 5

11am & 2pm **Web Spinning Tales storytelling.**

Thursday, August 8

11am & 2pm **Web Spinning Tales storytelling.**

Friday, August 9

10am - 1pm **Lava activity.** Now that they're cool, touch some of the substances produced by a volcano.

Saturday, August 10

11am **Web spinning tales storytelling**
11am & 1pm **Highlights of The Field Museum tour.**
11:30 & 2:30 **The Aztec Empire and Its Predecessors tour (English.)**
1pm **El Imperio Azteca y sus Predecesores tour (en español).**

1pm **Native American Spider Stories** told by Florence Dunham of the Mohawk people
1:30pm **Tibet Today slide lecture and a Field Museum Tibet exhibit tour.** A slide presentation which takes you to Lhasa and other places now open to tourists in Tibet. A guided tour of the Tibet exhibit will be offered after the lecture.

Monday, August 12

11am & 2pm **Web Spinning Tales storytelling.**

Thursday, August 15

10am & 12pm **Africa Exhibit tour.**
11am & 2pm **Web Spinning Tales storytelling.**

Friday, August 16

10am - 1pm **Native American Tools activity.**

Saturday, August 17

11am & 1pm **Highlights of The Field Museum**
11am & 2pm **Web Spinning Tales storytelling.**
11:30am & 2:30pm **The Aztec, The Maya and Their Predecessors tour.**

Sunday, August 18

11am & 1pm **Highlights of The Field Museum tour.**
1pm - 3pm **African Metals activity.**
11:30 am & 2:30 p.m. **The Aztec Empire and Their Predecessors tour.**

Monday, August 19

11am & 2pm **Web Spinning Tales storytelling.**

Thursday, August 22

11am & 2pm **Web spinning tales**

Friday, August 23

10am - 1pm **Terrific Teeth activity.**

Saturday, August 24

11am & 1pm **Highlights of The Field Museum tour.**
11am & 2pm **Web spinning tales**
1:30 p.m. **Tibet Today and a Faith in Exile** slide lecture.

Sunday, August 25

11am & 1pm **Highlights of The Field Museum tour.**

Friday, August 30

10am - 1pm **Sea Shells activity.** Did you know that shells were "left-handed" or "right-handed"? Discover more about different types of shells in this informative activity.

Saturday, August 31

10am - 1pm **Adinkra activity.**
11:30 & 2:30 **The Aztec, The Maya and Their Predecessors activity.**

Daniel F. & Ada L. Rice Wildlife Research Station

Learn more about the animal kingdom through videos, computer programs books and activity boxes. Open daily 10am-4:30pm

Webber Resource Center

Native Cultures of The Americas Use books, videos, tribal newspapers and activity boxes to learn more about native peoples. Open daily 10am-4:40pm

Place for Wonder

Touchable objects let you investigate fossils, shells, rocks, plants, and items of daily life in Mexico. Open daily 10am - 4:30pm.

Pawnee Earth Lodge

Visit a home of mid-19th century Pawnee people. Learn about these Native Americans and their traditional life on the Plains. Weekdays: Programs at 11am, 11:30am, 1pm and 1:30pm Weekends: 10am-4:30pm

Ruatepupuke, a Maori Meeting House

Discover the world of the Maori people of New Zealand at the treasured Maori Meeting House. Daily 10am-4:30pm

See spiders using a video microscope. Phil Parillo, collections manager of insects, or another Field Museum scientist will be in the Curator's Office in the "Spiders!" exhibit every Saturday and Sunday from 11 a.m. to 2 p.m.



MASSIVE BIRD SURVEY IS PUBLISHED

Forget not the Amazon rain forests, but consider too the much more imminently threatened forested slopes of the northern Andes, the Atlantic Forest of coastal Brazil, and the dry forests and grasslands of central South America. While these regions are not as biologically diverse as the rain forest, most of them contain habitat-restricted species that are seriously threatened with extinction as a result of human encroachment. By preserving large tracts in just 38 of these regional habitats, we could go a long way toward solving the most urgent problems of conserving tropical diversity. By contrast, the Amazon rain forests are still relatively intact.

That is the message of *Neotropical Birds: Ecology and Conservation*, just published by the University of Chicago Press. The book analyzes the ecological and geographic distribution of all 4,037 species of birds in the Western Hemisphere south of the Rio Grande. Nearly three-fourths of the volume's 502 oversize pages are devoted to databases, also available in searchable and manipulable electronic form, that report in detail the ranges, habitats, elevational limits, foraging levels, relative abundances, breeding and migratory behaviors, and sensitivity to human disturbance of each species, assigning priorities for research and conservation. The health of bird communities is taken to be an indicator of the general health of the local ecosystem.

The authors are Douglas F. Stotz and Debra K. Moskovits of The Field Museum's Office of

Environmental and Conservation Programs; John W. Fitzpatrick, a former curator at the Museum who is now director of the Cornell Laboratory of Ornithology; and the late Theodore A. Parker III.

Parker, one of the world's leading ornithologists, died three years ago in a plane crash in Ecuador while on a reconnaissance mission for Conservation International's Rapid Assessment Program. (See In the Field, *September/October 1993*.) The book is based largely on data collected by Parker, who was legendary in the field for his ability to recognize the songs of some 4,000 species.

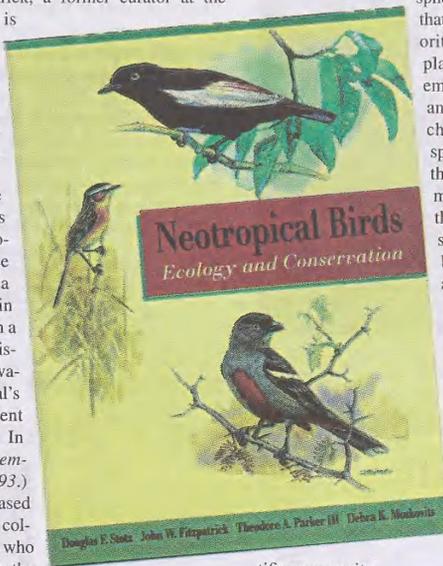
Neotropical Birds, seven years in development, is a joint project of The Field Museum and Conservation International.

In essays accessible to lay readers and of particular interest to conservation workers and

government officials throughout the hemisphere, the authors argue that our conservation priorities have been misplaced — that our emphasis on Amazonia and on threatened charismatic "flagship" species has blinded us to the much greater and more imminent threat to the habitats of thousands of species of birds, other animals, and plants. Habitats, not individual species, should be the basis for conservation planning, they say.

The databases, which include minutely detailed listings of the microhabitats favored by each species, will be of use to birders as well as to the scientific community.

Neotropical Birds is available in paperback for \$37.50 and in cloth binding for \$100.



DEEP-SEA SNAILS AND THEIR TRAVELING COMPANIONS

Adapting paleontological methods to marine biology, Field Museum zoologist Janet R. Voight and her colleague Sally E. Walker, a geologist at the University of Georgia, have used museum collections of snails to infer biogeographic patterns of tiny deep-water protozoans, barnacles, worms, and other creatures that live on or within the snail shells.

Many scientists have suggested that the deep sea has greater biodiversity than any other marine or terrestrial environment, but most of the diversity is due to the presence of very small animals that can be difficult, and very expensive, to sample. By examining the frequency and distribution of these animals on the shells of two species of the snail genus *Gaza* (including *G. superba*, pictured here), Voight and Walker tested whether the shells offer an easy way to assess deep-sea diversity.

They examined under the microscope 455 snail shells that had been collected at depths of 300 to 1,000 meters on the Gulf Coast, the northern coast of South America, and the Lesser Antilles by the research vessels *Oregon* and *Silver Bay* between 1954 and 1970 and deposited in The Field Museum and the Los Angeles County Museum of Natural History. Voight and Walker conclude that the snail shells do indeed permit such assessment, finding that the composition of the sediment in which the snails forage, rather than any characteristic of the shells themselves, accounts for the uneven distribution of the microorganisms they observed on the shells of the museum specimens.

All of the specimens collected near continents, even at depths of 1,000 meters (about 3,300 feet) carried two or more of the ten passenger species, with those found near the



mouths of rivers carrying the greatest variety. But snails from similar depths off the Lesser Antilles carried no associated animals.

After considering a number of hypotheses to explain the differential, Voight and Walker suggest that the salient factor is the nutrient-rich terrestrial sediments deposited even in deep water near continents. These sediments apparently provide food for the snails with enough left over to support a variety of their traveling companions, while the comparatively barren sediments of the open ocean can support only the snails.

The findings have been published in the journal *Deep-Sea Research*.

INDIAN HALLS ARE REINSTALLED

Working cooperatively, members of the Museum's Anthropology and Exhibits departments helped bring closure to several years of "shuffling cases" in the former North American Indians wing. It was in disarray after a 1991 construction project necessitated moving elements to protect them from damage. All of the North American Indian displays are now together, in one location in the northeast wing of Stanley Field Hall near the bookstore.

The North American Indians exhibit consists of five halls that give information about Indians from the Plains, Southwest, and Woodland and Prairie as well as ancient Indians. It showcases the cultures and lifestyles of the original inhabitants of the land. From textiles to weapons, the exhibit offers a realistic representation of Native American life all over the United States and Canada.

Pieces at a time, the exhibit was slowly interspersed throughout the Museum to accommodate the special demands from the construction project. The Plains Indians display, which includes artifacts from the Sioux, Comanche, Cheyenne, Assiniboine, Arapaho, Crow, Cree, and Kiowa tribes, prompted a lot of confusion after being mixed with some prehistoric material.

In order to build the new Special Exhibit galleries, the Southwest Indians display had to be moved. The Museum is moving the galleries, where "Spiders!" is now, from the ground floor to the first floor; the "Life Underground" exhibit, which is still being developed, will be in this space. The Insects exhibit was moved from near the south end of the bookstore to the ground floor to make room for the Plains Indians material. Since the space the exhibit now occupies is somewhat smaller than before, some material had to be trimmed so that almost all of the items originally displayed could be retained.

In the hall that houses the Pawnee Earth Lodge and the Indians of the Woodlands and Prairies, two display cases were removed and three new ones added to allow visitors to enter and exit the Special Exhibit gallery next door.

— Rhonda Jones



William Burger

Michigan lily

CAJUN AND ZYDECO MUSIC FEST

The Cajun and Zydeco Music Festival at the Museum on July 20 features two of Zydeco and Cajun's best performing groups. The party celebrates the rich cultural heritage of southern Louisiana, with regional cuisine, beers, and dancing. The event is from 7:30 p.m. to midnight; admission is \$15 for members and \$20 for the general public. For tickets call (312) 322-8854.

Alphonse Ardoin, one of the legendary Creole (precursor of Zydeco) performers, earned his nickname "Bois-sec" (dry wood) in his youth because of the great efforts he made to avoid getting wet while working in the fields. When he was seven, he was forbidden to touch his older brother's recently acquired accordion, but could not resist. By the time he was 15, Bois-sec had begun to play for dance and house parties with fiddler Canray Fontenot. Bois-sec has played in festivals here and abroad; the Smithsonian and Carnegie Hall are among the places he and his family have performed. At the Cajun and Zydeco music fest, his son Morris will join him on fiddle; his grandsons Gus, Dexter, and Alphonse Paul (base, drums, and guitar) will play with him as well as perform their own Zydeco music.

The Cajun tradition will be represented by the Chicago Cajun Aces featuring Charlie Terr (accordion), John Terr (guitar), Denise Thompson (fiddle) and Bill Sudkamp (triangle and rub-board). Having played with a number of the masters of Cajun music, Charlie Terr was made an honorary Cajun by the Cajun French Music Association in 1989.

The festival complements the continuing exhibit of Philip Gould's photographs of the southern Louisiana music scene over the years.

The Chicago Cajun Aces will perform at the Cajun and Zydeco Music Festival.



Lynn Terr

PRAIRIES . . .

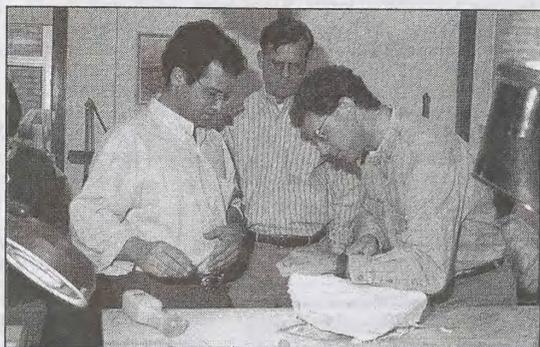
temperatures that caused more seeds to germinate. (Many seeds lie dormant in the soil for a number of years and become part of what is called the "seed bank.") In 1994 there was an interesting switch in gentian flowering at Zander Woods. There, on a moist embankment, over a hundred fringed gentians regularly flower each September. In nearby Jurgenson's Woods Prairie, one can often find a few bottle gentians flowering at about the same time. But in 1994 things went differently. The bottle gentians numbered over fifty, while the fringed gentians numbered fewer than fifteen, a dramatic reversal of the usual situation. Similarly, one usually sees only a few brilliant-orange lilies on the Gensberg-Markham prairie in early July, but in 1995 I counted 50 in one area. Why

these numbers fluctuate so wildly is hard to say, but weather has to be part of the answer.

Desert flowers are famous for their dramatic response to good rainfall, especially after a series of dry years. Prairie flowering covers many more months, includes more species, and is more subtle in its variations. Even the tropical rain forest responds to weather changes with variations in flowering and fruiting patterns from year to year, but it takes many careful observations to note such variation. For those of us who regularly visit the prairie, these annual and seasonal variations are clearly apparent. Visit a prairie, expect occasional disappointment, but be ready for unpredictable surprises.

NATURE NETWORK VIEWS FOSSILS

Nature Network got a closer look April 20 at recent fossil discoveries from Madagascar. Greg Buckley, research assistant in Geology, who was one of the discoverers, talked about the find, and then Nature Network members got a chance to help extract the fossils from the solid rock.



Paul Behrer/GS/8/12/22

ANDES SYMPOSIUM DRAWS 200

In a breathtaking day of scientific cross-fertilization, the Museum's 19th annual Spring Systematics Symposium brought together botanists, zoologists, geologists, and archaeologists to consider the ways in which physical processes, biological evolution, and human activity have interacted over the millennia to create the varied environments of the Andes mountain chain of South America — environments that are still subject to these dynamic forces and still in the process of change.

The meeting on May 11 included eleven formal presentations and two periods of open discussion, in addition to the buzz of informal exchanges among the 200 attendees. The program, the first broad contemporary synthesis of Andean research, was organized by John J. Flynn, MacArthur Curator and chair of the

Museum's Department of Geology, and Barry Chernoff, associate curator of fishes and chair of the Department of Zoology.

Flynn said the symposium was designed "to integrate the biological with the physical and with the human element to shed light on the dynamics of the entire system."

"In order to make any rational decisions about conservation issues in this diverse area," Flynn said, "we need a better scientific understanding of what's there and how it came to be."

The Andes, stretching 5,500 miles from tropical to sub-arctic latitudes in western South America, have been the locus of important new discoveries in many disciplines in recent years, and the symposium sought to integrate these findings to establish a baseline for further research. The region includes desert to the west and rain forest to the east of the mountains, and a wide range of ecosystems at different elevations and latitudes. These areas harbor large numbers of species of plants and animals found nowhere else in the world, though continental movement links many of them to the flora and fauna of Africa, Australia, and North America.

"The key idea here is that the Andes didn't come up all at once," Chernoff said. "As the geology was changing, climates were changing, which affected the distribution of plants and animals. We're looking at these dynamic changes to see what caused what. Almost everything that's there is not found on other continents, or anywhere else in the world, because of the isolation of the Andes. In a sense, this was a unique experiment in the history of life."

Last year's symposium took a similarly expansive look at human, biotic, and geological interrelationships on Madagascar, again with an eye toward developing a scientific understanding that could inform conservation strategies.

Field Museum botanist Michael Dillon (right) and his Peruvian colleague, Abundio Sagástegui Alva at the reception following the symposium.



Bob Dorfman

MADAGASCAR . . .

(Continued from page 1)

bird described in 1971 and thought to be restricted to the Isalo Massif towards the west. Perhaps most interesting was the discovery of a high mountain population of the Ring-tailed Lemur. Normally this species inhabits lowland forest areas in the extreme south and southwest. The most remarkable aspect of this high mountain population is that the pelage coloration and pattern of rings on the tail are distinctly and consistently different than standard ring-tails. We were able to gather some information on what they are eating and Olivier obtained excellent photos.

In mid-September I was in Paris for a week to attend a symposium on the biogeography of Madagascar organized by the Société de Biogéographie and the Muséum National d'Histoire Naturelle. It was an interesting meeting and many Malagasy and foreign researchers attended. We also had a chance to compare the photos taken by Olivier of the ring-tails from Andringitra with specimens in the Paris museum, and as originally thought in the field, the high mountain population is distinctly different.

After the meeting in Paris I returned to Madagascar to conduct a reconnaissance trip of the Andohahela reserve, a poorly known forested area in the extreme southeast. This is the forest in which Tom Schultze and I rediscovered in 1989 the Red-tailed Newtonia, a bird species described in 1933 and only known from the type specimen. (See *In the Field*, July/August 1990.) The main point of this trip was to figure out the trail system and to provide access to the eastern slopes (400 – 1,980m) for a multidisciplinary group of researchers that was due to assemble in Antananarivo in a few weeks time.

Once back in Antananarivo from the reconnaissance trip, all of the material and provisions for the Andohahela transect were purchased, packed, and hauled down to the southeast; the expedition group members organized, and off we went. The group consisted of 17 biologists of seven nationalities with specialties in ferns, higher plants, soil invertebrates, aquatic invertebrates, terrestrial snails, reptiles, amphibians, lemurs, birds, carnivores, and small mammals. The group also included a cook and three local fellows. With all of the food and equipment needed for such a large group, the shifts between camps were a bit complicated. In several cases it took 40 – 45 porters to move everything. The folks in the nearest village were exceptionally helpful in arranging porters and getting us in and out of the forest.

The main purpose of the expedition was to conduct a multi-disciplinary elevational transect

of the eastern slopes of the Andohahela reserve. We had camps at 400, 800, 1,200, 1,600, and 1,925m. The highest point in the reserve is Trafonaomy (meaning "cattle hump") at 1,950m. Our last camp was just below the summit. Above the 400m camp there was pristine forest to the summit. From the nearest road on the eastern side of the reserve to the summit was about a three-day walk. We were in the forest for a little under two months.

Most of the researchers on the trip are still working up their data and it is premature to give a broad overview of the results. However, for small mammals and birds, the groups that I worked with, it is clear that the reserve is extremely rich. On the basis of field identifications it appears that 13 species of shrew-tenrecs, all in the same genus (*Microgale*) occur on the eastern slopes of the reserve, at least one of which is new to science. Further, we found two new species of rodents that are in two different new genera we are in the process of describing.

In January, Olivier Langrand and I organized a survey of two forested areas in the southwest that are being proposed as part of a new national park. These forests are transitional between the rain forests of the east and the spiny bush of the west. For example, in these forests one can find epiphytic humid forest orchids growing on the branches of a baobab tree. The group was slightly smaller than the Andohahela survey and our sites were accessible by vehicles, which made logistics very simple. Compared to the work in Andohahela, it was much more like a holiday. Some of the interesting results include the discovery of another new *Microgale*, very mousy in appearance, and a large population of Benson's Rock-Thrush, the same species we found in the Andringitra reserve in September, and which significantly expands the known distribution of this endemic species.

In February, I went up to a high mountain zone called Ankaratra, not far from Antananarivo, with Daniel Rakotondravony, Lucienne Wilme, and a group of students from the University of Antananarivo. The main point of the trip was to provide training in field techniques to young Malagasy scientists about to start graduate school in the zoological sciences. Further, the mountain is the type locality of a new genus and species of rodent that Mike Carleton and I are describing. The holotype was collected in 1929 by Rand and was the only known specimen from the site. Unfortunately, not much forest remains on Ankaratra, although the course went well and we did find Rand's mouse.

The first half of March was spent in town working on manuscripts and dealing with various administrative details. The University of Antananarivo received a grant from the MacArthur Foundation for refurbishing rooms housing specimens in the zoology, paleontology, botany, archaeology, and geology departments. I was nominated the "manager" of the project. It is now going well and new rooms, walls, cabinets, etc. are currently under construction. I have also been named a faculty member at the University of Antananarivo.

Link Olson arrived in mid-March and soon thereafter we headed north to Amber Mountain to complete an elevational transect that I have

been working on for a couple of years. On earlier surveys we found in this forest two undescribed mammals — a rodent in the genus *Eliurus* and a shrew-tenrec in the genus *Microgale*. On previous surveys considerable numbers of introduced rats (*Rattus*) were trapped and we have been monitoring the situation. It appears that as the number of rats increases the number of endemic rodents decreases. Near our camp below the summit of the mountain (1,450m), which was in undisturbed forest and many kilometers from the forest edge, rats were everywhere. We caught literally hundreds of rats and only on the sixth night of trapping at the site did we capture the first and only endemic



Olivier Langrand

rodent. Moreover, on the basis of the food preferences of the rats, they are caching and consuming nuts and fruits that make up a substantial proportion of the diet of the large diurnal lemurs of the area. Thus, there is evidence that introduced rats are displacing the endemic rodents of the area and perhaps also lemurs. Link's main purpose in joining the survey was to karyotype insectivores and gather more tissues for his Ph.D. research. Most of the insectivores were captured with pitfall traps, and at several sites it is not too much of an exaggeration to say our buckets were brimming over.

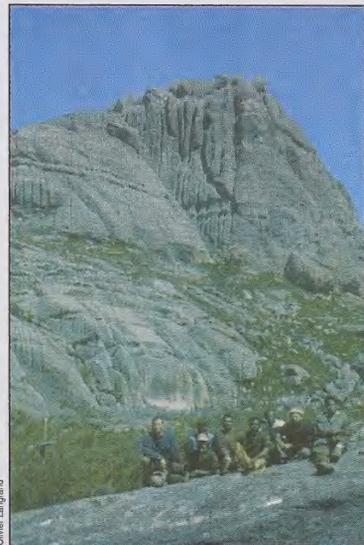
I am now in town for a few weeks catching up on various things, filing reports, dealing with permits for exportation of specimens and the next season of work, working with students at the university, and eating well to fatten myself up a bit. Lucien Rakotozafy, who has been to the Field Museum twice, presents his Ph.D. next week. I will leave Madagascar on 5 May and spend about eight days in Paris working in the museum and then head back to the Field Museum for the summer. I am due back here in late August to commence another cycle of field research and instruction at the university.

In short, it has been a busy field season with lots of time in the forest. These inventories are critical to document the biological diversity of this island, and this data hopefully will be used for improved management of the few remaining forested areas on the island. Also, the education of young Malagasy scientists during these surveys and associated with my role at the World Wildlife Fund and the university is perhaps the most important role we can play in conservation on the island. These students are the next generation of Malagasy professors, researchers, and administrators who will have the knowledge and background to make wise and appropriate decisions associated with their natural heritage.

Steve Goodman is a field biologist in birds and mammals at The Field Museum.

Above, participants in a biological inventory of the Vohibasia Forest in southeastern Madagascar, organized by WWF-Madagascar. The region is soon to be designated as part of a new national park. The group consisted of researchers from five countries and more than half the participants were Malagasy.

Left, expedition field party on the Cuvette de Pic Boby (2,450 meters) on the Andringitra Reserve. The summit is directly behind and above the group. This is the site at which a bizarre and perhaps new form of lemur was discovered.



Olivier Langrand



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