

Chapter 4

Environmental Education

From its inception the Belize Audubon Society has been committed to environmental education, both of youth and the general public. The Youth Education Committee was established at its formation and members quickly got to work. Copies of the *BAS Bulletin* were provided to all secondary schools. BAS members were invited to present lectures at a number of different organizations including the Trade Union Seminar for Worker's Education and the National 4-H Camp at Gracey Rock.

At the monthly meetings of the Society there were talks, lectures, slide presentations and movies by members and others sharing their expertise. Business meetings usually followed the feature, which was advertised as being open to the public. The following talks were given in 1969.

<i>March 7</i>	<i>Dora Weyer</i>	<i>Birds of Belize City</i>
<i>April 17</i>	<i>Magnus Halcrow</i>	<i>Orchids of Belize</i>
<i>May 22</i>	<i>W. Ford Young</i>	<i>Physical Geography and Geology of Belize</i>
<i>June 19</i>	<i>Meg Craig</i>	<i>Tropical Plants</i>
<i>July 24</i>	<i>Louis Lindo</i>	<i>Forest Environment</i>
<i>August 21</i>	<i>Peter Hill</i>	<i>Movies of Wasps, Butterflies and Snakes</i>
<i>September 12</i>	<i>Dr. Andre Clewell</i>	<i>Use of Fire in Forest Management</i>
<i>September 18</i>	<i>Gil Rosado</i>	<i>Our Fishery Problems</i>
<i>October 23</i>	<i>Dora Weyer</i>	<i>Snakes of Belize (with live specimens)</i>
<i>November 20</i>	<i>Peter Hill</i>	<i>Movies of Birds, Mammals, and Insects</i>

Our December meeting was cancelled as a mark of respect for Russell Waters, Chief Forest Officer and BAS member, who was killed in a plane crash on December 8, 1969. He had been scheduled to speak at the January 22, 1970, meeting. Instead Magnus Halcrow spoke on "Conservation in West Africa."

BAS Bulletin

The first *Belize Audubon Society Bulletin* was produced in March 1969 by W. Ford Young and his wife, Callie. In September Norman Staines succeeded them and then the Secretary took on the task by the end of that first year. The *BAS Bulletin* was faithfully produced every month for the first eighteen years until August of 1987 when it was succeeded by the quarterly *BAS Newsletter*.

BAS Library

The first BAS library was housed at Ford Young's office and was comprised of his books, which he donated. Additional books were donated by Colonel Hastings and other members and friends. The library was moved to the BAS office on the Foreshore when it was opened in 1985. Mrs. Catherine Meekin, a Peace Corps Volunteer, spent a few months cataloguing the books and made a card index for the *BAS Bulletin*.

Radio Programmes

Beginning in July of 1969, BAS radio programmes were written and presented by members as a part of the Scout Programme on Radio Belize. Board member Norman Staines was Executive Director of the Scouts and arranged for BAS to include these scripts on natural history. Subsequently Radio Belize donated airtime for "Audubon Weekly" read on Mondays. These radio scripts were printed by BAS for distribution to schools and other interested parties. Visitors were interviewed and on one programme student members participated in a panel discussion.

Summer Programme in Tropical Biology

In 1970 a group of U.S. mid-western universities formed the Associated Universities for International Education and established a Tropical Research Center at St. John's College. Courses in marine and terrestrial ecology were offered from 1972 through 1977. The marine course was held at Glovers Reef and the terrestrial course at various locations on the Belize mainland. Mrs. Weyer was on the faculty and scholarships were offered to Belizean students. BAS took the opportunity of sponsoring public lectures by faculty members at the Bliss Institute on a wide variety of subjects.

Goshen College Programme

From 1974 until 1979 the BAS conducted a cooperative environmental education project with Goshen College in Goshen, Indiana. Goshen students came to Belize for their Study/Service Trimester. Some worked in protected areas and others presented the BAS Nature Study Programme to schools. BAS members prepared slide presentations with taped narrative and the Goshen students took them to the schools in Belize City and in the Districts. The first year, 1975, more than 3,700 Belizean students saw the two presentations, "The Coastal Edge – Sand Beach" and "The Coastal Mangrove Edge." In 1978 the 72-slide presentation on "Hardwood Forests" was shown to 6,900 students.

Obtaining equipment for these projects was always a challenge. The Goshen students brought the first slide projector, which was purchased with BAS funds. Then an offer came for another donation from *Centro Agronomico Tropical de Investigacion y Enseñanza* (CATIE).

During my visit to Belize in January, I was very impressed with many of the things I saw and learned in the country, including the enthusiasm of the Belize Audubon Society for the conservation cause, which I would very much like to support.

I understand from your letter that your society has already bought a slide projector and are now in need of a tape recorder and a screen.

I believe we may be able to supply you with this. (Letter from Dr. Arne Dalfelt of CATIE, 8 March 1977)

Training Programmes and Conferences

Training for Teachers

One of the contributions of the Goshen College programme was the inclusion of nature study and conservation in the syllabus for the Upper Division of the Primary Schools, Standards IV, V, and VI. After the Goshen programme was discontinued the teachers asked the BAS to continue presenting those nature study programmes.

BAS was invited to participate in the training of teachers at the Teachers College and participated in the Curriculum Development Unit's Infant Schools Science and Social Studies Seminar.

Besides being very interesting and informative, your lecture did much to enhance the learning that occurred. We feel strongly that the ripple effect (from lecturer to teachers to students) will be felt because of your role in the programme. (Letter to Mrs. Lydia Waight from Carolyn Leacock, Curriculum Development Unit, Ministry of Education, January 29, 1986)

Coastal Zone Management

In August of 1981, Nova University's "Marine Sciences Under Sail" came to Belize and offered a workshop in Coastal Zone Management. Eight BAS members participated in the workshop.

Environmental Education Workshop

The World Wildlife Fund – U.S. supported a workshop on Environmental Education November 26 to 27, 1984, led by Dr. Augusto Medina.

National Conservation Conference

The first National Conservation Conference was held February 26 to 28, 1986, at the Pelican Beach Hotel. Representatives of several international organizations took part in the conference, along with officials of government and representatives of the private sector. Hon. Dean Lindo signed the Statutory Instrument creating the Cockscomb Basin Wildlife Sanctuary after declaring the conference open.

Tour Guide Training

In November of 1987 the BAS assisted the Belize Tourism Industry Association with a seminar designed to provide local tour guides with knowledge of the natural history of Belize. Mr. and Mrs. James Waight presented a slide show that depicted the major ecological zones of the country and the flora and fauna associated with these areas. Dr. Victor Gonzalez spoke on conservation and its international dimensions.

Training for Wardens

Over the years many training programmes have been held for the wardens of the BAS-managed parks. In the Summer of 1989 Dr. Douglas James gave a series of two-day workshops to personnel of CBWS, GNP, and BHNL on the techniques of bird identification. This was funded by the US Fulbright Programme. Under the same programme a number of books were donated to the BAS Library.

Nine wardens from the Cayo Parks and the CBWS were trained at the Police Training School in Belmopan and sworn in as Special Constables on March 4, 1991. In July of 1992 three additional wardens from CTWS and the Community Baboon Sanctuary were trained and sworn in as Special Constables.

In June of 1991 a course entitled "Protected Area Personnel Training Course" was held at the Douglas D'Silva Center in the Mountain Pine Ridge Forest Reserve, organized by the Forest Department and Colorado State University. CBWS Park Director Ernesto Saqui and Protected Areas Manager Osmany Salas were Assistant Facilitators.

In August of 1992 a training programme in wildlife management was held at the Belize Zoo and Tropical Education Center, taught by Dr. Jack Meyer, biology instructor at the University College of Belize.

A minicourse on Photogrammetry and Rapid Ecological Assessment (REA) was given to three wardens at the Pelican Beach Resort in Dangriga in February of 1993. The next month the information was quickly used in a REA of the Bladen Branch Nature Reserve conducted by Pio Saqui, Eugenio Ah, and Donald Tillet.

A Warden Training Workshop was held February 1 to 3, 1996, at Shipstern Nature Reserve. In addition to wardens from all of the BAS-managed parks, Claudia Saqui and Dora Pau represented the Maya Center Women's Group. The main objective of the workshop was to improve services offered in the parks.

An intensive six-week training course in Forestry Skills for Belize was held at the end of 1996 at the Douglas D'Silva Forest Station in the Mountain Pine Ridge. BAS senior staff were the trainers and two wardens completed the course.

Economics of Natural Resources

"Economics of Natural Resources" was the subject of a Seminar coordinated by BAS and sponsored by the National Resources Management Programme of USAID (NARMAP), World Wildlife Fund, the MacArthur Foundation and the *Universidad de Concepcion* of Chile. Dr. Arcadio Cerda of the *Universidad de Concepcion* of Chile was the main facilitator. Topics included national accounts and environmental commodities; relationships among population, resource use, technology, environmental degradation and pollution; and economic theory and measurement of environmental benefits. The Seminar was held at the Radisson/Villa Hotel in Belize City October 13 and 14, 1993.

Conservation and Management Training

BAS received a grant from the Small Grants Programme of the Global Environmental Facility of the United Nations Development Programme for the training of protected area managers and local community leaders. The first workshop, "Conservation and Management Training for Protected Areas Managers and Local Community Leaders," was held April 10 to 16, 1994, with fieldwork in GNP. The fourteen participants represented six protected areas and four buffer zone communities. A representative from the Belize Youth Conservation Corps also participated. A follow-up workshop was held at Shipstern Nature Reserve September 3 to 9, 1994, with the same participants.

Gender and Development

In cooperation with the World Conservation Union (IUCN) BAS hosted a workshop entitled "Gender and Development" at the Pelican



Participants in the Gender Workshop

Beach Resort in Dangriga from November 8 to 11, 1994. Lorena Aguilar Revelo from IUCN's Costa Rica office did a fantastic job facilitating the workshop. The workshop was designed to look at the role of gender in development, specifically to increase the awareness of societal attitudes and values concerning gender and how these attitudes change over time, to show experiences and case studies, and to show how to integrate gender and development in an organization. Participants included representatives of women's organizations, environmental organizations, buffer zone community groups, and BAS protected areas staff.

Freshwater Creek Training Programme

BAS conducted an environmental training program for the Association of Friends of Freshwater Creek, which was formed to co-manage Freshwater Creek Forest Reserve, the only declared Forest Reserve in the entire northern Belize.

Freshwater Creek Forest Reserve was set aside to protect broad-leaf forests for managed exploitation. The Reserve has suffered from extensive chicle extraction and both licensed and unlicensed logging, in addition to agriculture encroachment, fishing and hunting. All have had considerable impact upon the Reserve.



Association of Friends of Freshwater Creek on a field trip to Cockscomb Basin Wildlife Sanctuary

The Association is comprised of members from Orange Walk Town, San Estevan, Santa Martha, and Chunox, who approached the BAS for assistance in attaining the technical expertise and management skills that are needed for co-management. There were 25 participants in the programme, which included several workshops alternating among the communities represented. Field trips included the Crooked Tree and Cockscomb Basin Wildlife Sanctuaries.

RARE Programme

The RARE (Rare Animal Relief Effort) Center for Tropical Conservation of Philadelphia, Pennsylvania was an environmental education project that was carried out by the Forest Department of the Ministry of Natural Resources to promote public awareness. Beginning in the Spring of 1993, BAS assisted with Belize City schools where the RARE programme was presented by the CZM Environmental Educator and BAS Staff. In one month they visited some 43 schools and met over 10,000 students. Mass media and puppet shows were used, including the human-sized Rainbow the Toucan puppet. The programme was a hit with students because it made learning about the environment entertaining as well as educational.



(above) Valdemar Andrade teaches in the Tapir Mountain Environmental Carnival



(right) Rainbow the Toucan at the Wesley Primary School in Belize City. Osmany Salas is inside the costume.

(below) Students of Xavier Primary School with their teacher at the Corozal Environmental Carnival held at the Corozal Civic Center



Environmental Conservation Carnivals

Two traveling environmental carnivals used Rainbow the Toucan and other innovative techniques to bring environmental education to students of Belize's outlying districts. Environmental educators from the Belize Audubon/Coastal Zone Management Unit, the Belize Center for Environmental Studies and the Belize Zoo presented the Environmental Conservation Carnival to all the primary schools in the Toledo District in the Spring of 1995. In the Fall, the carnival was taken to all the schools in the Corozal District. In October the presenters took time out to make a special appearance at schools in the villages near Tapir Mountain Nature Reserve in the Cayo District. This ambitious project was funded by a flock of agencies including World Wildlife Fund, the Forestry Planning and Management Project and NARMAP.

Coastal Zone Management (CZM) Project

Valdemar Andrade, 1993

Beginning in March of 1990, a BAS staff member was responsible for the Environmental Education component of the Coastal Zone Management (CZM) Project under the Fisheries Department in the Ministry of Agriculture and Fisheries.

It was recognized that the country needed to adopt a multi-sectoral approach in developing a long-term strategy for coastal resources management and conservation, which would complement the rapidly expanding economic development of the country. The major focus of the CZM project was the preservation and sustainable use of the Belize Barrier Reef, the longest barrier reef in the Western Hemisphere. The variety of reef formations occurring within the territorial limits of Belize is unparalleled elsewhere in the Caribbean. The task of managing this system on a sustainable basis is an enormous challenge and one that warrants extraordinary measures. A strong emphasis was placed on education, at all levels, on coastal issues. June Neal was the first Environmental Educator under this programme followed by Valdemar Andrade in 1993.

Exhibitions

Agricultural Show

In April 1973 BAS was allowed to have a free booth at the National Agriculture and Trade Show held in the show grounds near Belmopan. Board members Ford Young, Dora Weyer, Shelly Matus, Bill and Diane Hasse prepared a display of photographs and pictures of native fauna which attracted a great deal of attention. There were handouts of information on BAS and conservation topics and copies of the radio scripts. The booth at the Agriculture Show was carried on for several years.

Although BAS was not able to have a booth in later years, they were represented. For example, the first BAS brochure was distributed in 1982 by the Chamber of Commerce, United States Embassy, Fisheries and Forestry booths. In 1983 our brochures and posters were displayed in the Fisheries booth.

World of Audubon

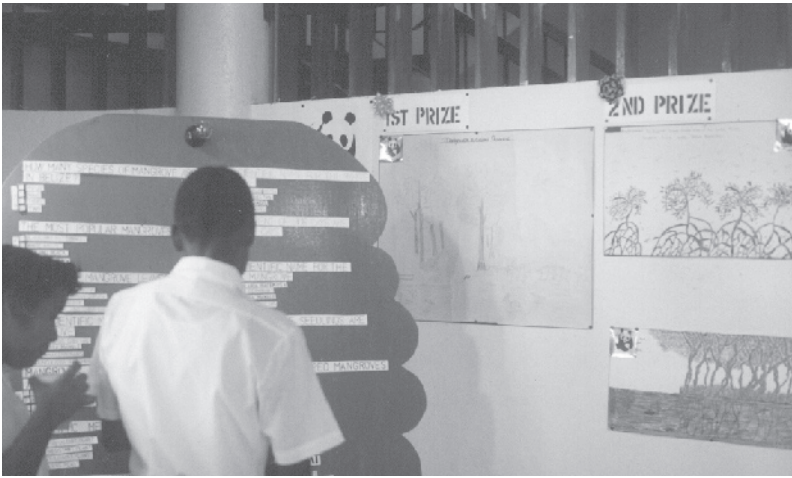
The first BAS exhibition was held at the Bliss Institute on Saturday, February 24, 1990. The exhibition of posters and photographs of the protected areas and other BAS conservation projects was opened by Hon. Florencio Marin, Minister of Industry and Natural Resources. A programme of video and slide presentations included "Birds of Belize" by Philip Balderamos, "Mammals of Belize" by Ernesto Saqui and "Trade in Wildlife" by Dr. Victor Gonzalez.

Feathers 'N Fins

"Feathers 'N Fins," a photo exhibition featuring the work of BAS member James Beveridge was held November 4 to 9, 1991 at the Belisle Art Gallery. His images from the forests, lagoons, reefs and cayes capture Belize's wildlife on film. Twenty percent of the sales was donated to the BAS.

Mangroves: Our Coastal Resource

"Mangroves: Our Coastal Resource" was the theme of the Coastal Zone Management exhibition held at the Bliss Institute from March 5 to 7, 1992. The purpose of the exhibition was to inform the public



Winning posters at “Mangroves: Our Coastal Resource”

of the importance of our mangroves. Coastal Zone Management/BAS Environmental Educator June Neal and Assistant Fisheries Officer Lawrence Lewis were responsible for coordinating the exhibit. It attracted a large number of visitors including hundreds of school children. Poster and essay competitions were held in connection with this exhibition in order to involve students.

Belize in Natural History

“Belize in Natural History,” was a photographic exhibition that presented the work of Luz Hunter, Demi Mejia, Ellen McRae and Tony Rath at the Belisle Art Gallery November 2 to 6, 1992. The excellent photographs of birds and animal life, as well as underwater scenes, were viewed by hundreds of school children and many adults.

Eco-Fest

Eco-Fest was held at the Holy Redeemer Parish Hall February 6 to 8, 1994, in association with the Silver Anniversary Celebrations, showcasing environmental programmes of thirteen different environmental organizations and agencies. The Central Bank of Belize and the Philatelic Bureau of the General Post Office exhibited their coins and stamps featuring the wildlife of Belize. The Cayo Parks, Cockscomb Basin and Crooked Tree Wildlife Sanctuaries each had prominent displays with park staff in attendance.

Hike and Bike for the Rainforest

On the last weekend of October, 1994, Hike and Bike for the Rainforest was held in Cayo to benefit conservation non-governmental organizations and the Tapir Mountain Nature Reserve. An Environmental Exhibition was displayed at the San Ignacio Hotel. Fund-raising included a dinner and sporting events.

Turtle Week

In an effort to promote sea turtle awareness in Belize, BAS sponsored a Turtle Week Exhibition at the Bliss Institute in Belize City from September 24 to 27, 1996. The event featured informative and interactive displays, videos, slide shows and talks. The purpose was to educate the general public about the importance of sea turtles in Belize and the rest of the world and why it is vital that they be protected.

BAS Awareness Week

Beginning November 4, 1996, a number of activities took place geared towards educating the Belizean public about the BAS, sensitizing people about who we are and what we do. There were press conferences, radio and television talk shows and interviews, advertising in the newspapers, and slide presentations in the tertiary educational institutions throughout the country.

Manatee Week

In an effort to promote manatee awareness and conservation in Belize, the BAS, Coastal Zone Management Project, Natural Resources Ministry, and Fisheries Department engaged in activities highlighting the manatee from March 23 to 27, 1998. Activities at the Bliss Institute included a poster competition, slide shows, talks, videos and a host of exhibits and displays. Many students and teachers, as well as members of the general public, were present at the exhibition.

Manatee researchers tell us that in the 1800's Belize's coastal waters, rivers and lagoons were teeming with manatees, so much so that they were hunted in great abundance. This mass hunting in turn led to the animal's near extinction. Today the manatee is considered threatened and endangered throughout its natural range.

The manatee species that occurs in Belize, the West Indian manatee, has its highest concentration for Central America in Belize, but they probably number less than 700 countrywide. Manatees are offered protection in Belize under the Wildlife Protection Act.

Belize Barrier Reef Awareness Day

June 5, 1997, dedicated globally as World Environment Day, was also celebrated as Belize Barrier Reef Awareness Day. To highlight the importance of protecting and maintaining the Belize Barrier Reef and its related ecosystems, an all-day programme of exhibits, slide shows, videos and talks was presented at the Holy Redemer Parish Hall. It was a collaborative effort of conservation NGOs, including the BAS, Siwa-ban Foundation, Programme for Belize and the Belize Zoo, along with GOB Fisheries Department and the Department of the Environment, Coral Caye Conservation, the University College of Belize, and the Coastal Zone Management Project.

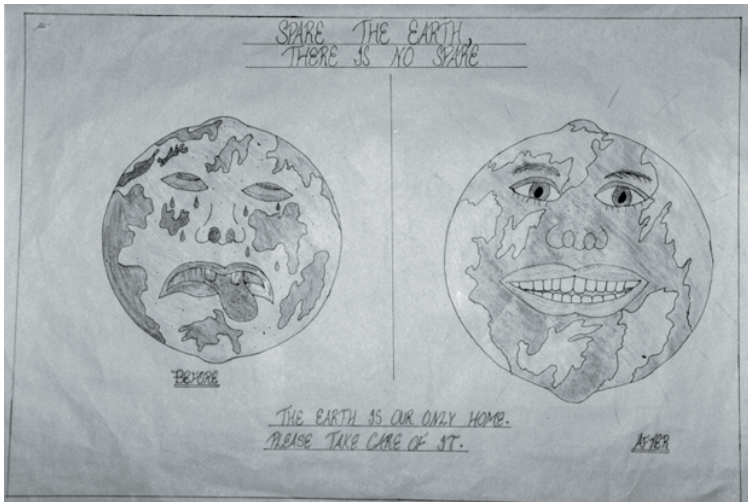
Dr. Victor Gonzalez, Permanent Secretary in the Ministry of Tourism and the Environment was the keynote speaker. His subject was "Refocusing Before the Green is Gone" and he emphasized the importance of educating today's youth as they will be the leaders of tomorrow, on whom the continued existence of our marine environment will depend.

Coral Reef Exhibition

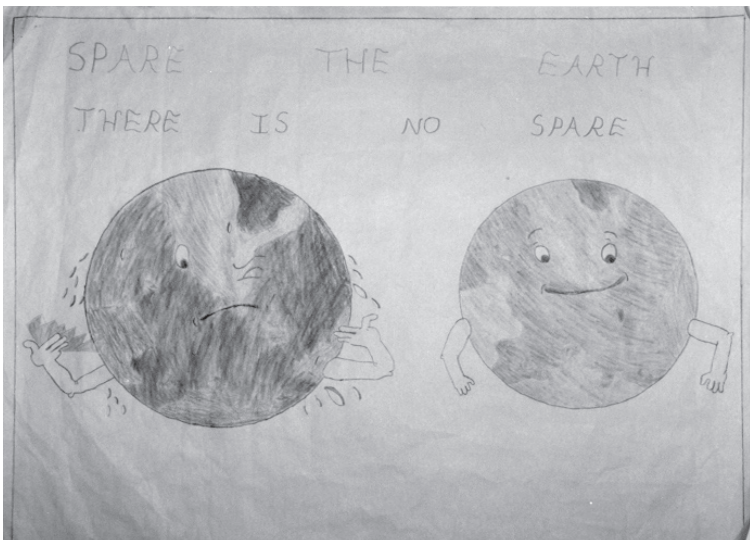
"Our Reefs: Caribbean Connection," was an information-packed bilingual traveling exhibition developed by marine scientists and educators of the Smithsonian Tropical Research Institute. This exhibit was delayed by two hurricanes in the Fall of 1998. It was originally scheduled to be moved to Belize from Puerto Rico in early October, but Hurricane Georges caused complications with transportation and it was delayed until the last week in October. But that was the week that Hurricane Mitch was passing through Central America, so it was further delayed. Finally in November the display was set up in Belize City at St. John's College Gymnasium and then in Belmopan and Corozal before leaving Belize in February of 1999. Not only did the exhibition provide an introduction to the basic biology of the animals and plants that together make up the coral reef ecosystem, but it also drew particular attention to the human threat to reef survival. Pollution, over-fishing, and run-offs from poor land-use practices all threaten the delicate balance of reef ecology.

Earth Day Celebrations

Every year the BAS celebrates Earth Day and World Environment Day. A typical example is the poster contest entitled “Spare the Earth - There Is No Spare.” Here are a couple of the winners in 1994.



*“The Earth Is Our Only Home — Please Take Care of It”
by Elissa Gibson*



“Spare the Earth — There Is No Spare” by Elton Robinson

BirdFest International '98

The first BirdFest International was held October 2 to 8, 1998. It was designed to be a major fund-raising event for BAS, taking advantage of off-season rates in accommodations, combined with the large numbers of migrating birds that are in Belize in October, along with the resident species. Four different itineraries were offered for a maximum of 150 participants. Participation was very low, but all were quite pleased with the experience. In all, 175 species of birds were seen.

Environmental Youth Camps

Belize Youth Conservation Corps

In the Summer of 1991, the Belize Youth Conservation Corps (BYCC) held two summer camps at the CBWS. They worked on a number of conservation projects. Several bridges were built or repaired, steps were constructed on steep hillsides, new trails were cut, and a garbage pit was dug.

From November 29 to December 2, 1993, twelve young ladies were at the GNP participating in BYCC-sponsored conservation activities. They built nesting boxes for birds, roosting boxes for bats, and made hanging baskets for orchids. In October of 1994 BYCC youth were back at GNP constructing a self-guided trail, upgrading the orchid display and repairing the steps leading down to the Belize River Recreation Center.

In June of 1995 an energetic team from BYCC cleaned the beach and cleared trails on Half Moon Caye.

Youth Enhancement Service Discovery Camp

In the Summer of 1996, 20 inner city youths along with their leaders, spent 6 days in CBWS. The objective was to use the outdoors as a practical classroom while examining and learning about the individual and group dynamics that arise as the kids worked through environmental activities together.

YWCA Camp at CTWS

About 100 youths participated in the Young Women's Christian Association's Environmental Education and Awareness Summer Camp at Crooked Tree Village.



Young Women's Christian Association's Environmental Education and Awareness Summer Camp at Crooked Tree Village

The camp, which lasted for three weeks in July of 1997, engaged the young people in meaningful environmental activities designed to help them become more involved in the sound use and management of Belize's natural resources.

Environmental Education Coordinator, Michael Somerville lectured to the groups on the Crooked Tree Wildlife Sanctuary and its important wildlife species, including the jabiru and the native fish species.

Belize Council for the Visually Impaired Summer Camp

A residential summer camp for blind and visually impaired children was held at the Cockscomb Basin Wildlife Sanctuary from July 26 through August 5, 1997. The camp was organized and run by the BAS and the Belize Council for the Visually Impaired (BCVI) with funding from the British High Commission.

The 21 blind and low vision children, along with six of their brothers and sisters, got involved in a range of activities which were designed to increase independence and confidence and to develop skills for daily living, education and mobility. Activities included arts and crafts, sports and games, jungle treks and day trips. For many of the children this was their first experience of a long trip away from home.

Coming from villages countrywide, most of the children are in regular primary schools receiving support from BCVI. This summer camp was the first of its kind for Belize.

Environmental Leadership Camp at CBWS

BAS assisted the Youth Department in a week-long Environmental Leadership Summer Camp at the Cockscomb Basin Wildlife Sanctuary from August 11 to 15, 1997.

This camp, the second of its kind, was coordinated in part by youths from the previous year's group. Fifteen youths participated, ranging in age from 14 to 17 years.

The object of the camp was to bring together a diverse group of youths from many social, cultural and economic backgrounds to spend a week camping and taking part in a wide variety of conservation-related activities.

YMCA Camp at CBWS

The Young Men's Christian Association, in collaboration with the BAS, held a week-long Summer Camp at the Cockscomb Basin Wildlife Sanctuary from August 18 to 22, 1997.

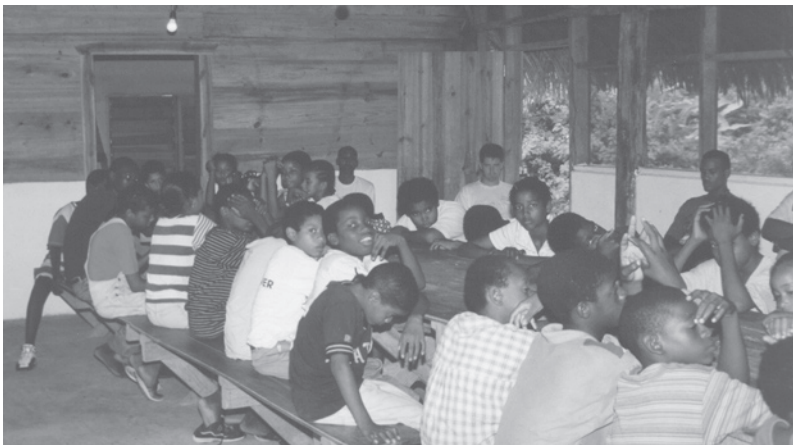
Twenty-four chosen participants, primarily from the Belize City area, learned about the history of the Sanctuary, the medicinal values of plants, identification of common birds and insects, food chains and the biology of the jaguar and the black howler monkey.

Environmental Summer Camp Curriculum

A curriculum guide was developed for future environmental summer camps to educate students or other interested groups about nature, and environmental and conservation concepts.



Scenes from environmental summer camps at CBWS under the leadership of Michael Somerville (above - standing)



Environmental Education Programme

Michael Somerville, 1998

A variety of Environmental Education efforts are underway in Belize by both the public and private sectors. Programmes are working to increase the school children's awareness and understanding of environmental problems, developing resource materials for teachers, and increasing public awareness about various conservation and environmental issues.

A baseline study was conducted in an effort to develop an environmental education strategy for the country. It was concluded that the most important audiences for addressing and resolving environmental problems are educators, NGOs, natural resource managers, community leaders, government officials, farming communities, environmental specialists, children, and media personnel.

While past environmental education programmes proved effective to some extent, most if not all of them have been confined to short-term periods, mainly as a result of the lack of adequate financial resources and personnel. BAS recognizes that in order for any environmental education programme to be truly effective, it must be continuous.

An increased effort in environmental education at BAS was made possible by the creation of a full-time Environmental Education Coordinator position in August of 1995. Clara Cuellar was the first to fill this position followed by Michael Somerville a year later. The extensive Environmental Education Programme is aimed at all levels of the general population on the premise that educating people about the environment and conservation will reciprocally lead to a better way of life for now and for generations to come.

The 5-year Strategic Plan for the BAS, developed in 1995, defines future directions for BAS by determining areas where it has the greatest strengths, weaknesses, and opportunities for success. From this plan an Environmental Education Action Plan was produced in 1996. General objectives include educating Belizeans about the environment, getting environmental education into the school curricula at all levels and developing protected areas as environmental education centers.

Protected Areas as Education Centers

Wardens have been assessed and trained to function as field educators to teach environmentally sound practices to children and adults that visit protected areas.

Interpretive trail guides have been developed and improved for CBWS, BHNP and GNP. Three self-guided trail guides have been developed for CTWS, along with interpretive signs for two elevated boardwalks. Bird checklists are now available for GNP, BHNP, and CTWS.

The visitor centers for CTWS, GNP, BHNP, CBWS, and HMCNM have all been upgraded and an Orchid Trail developed at CTWS.

Public Environmental Awareness Campaign

A national environmental public awareness campaign, sponsored by a grant from PACT, was conducted from June 1998 through February 1999 to promote Belize's protected areas. The hope was that more Belizeans would visit these natural areas and, hence, develop a greater awareness and appreciation for Belize's natural resources and overall environment. Six video TV spots were prepared and broadcast on local television stations. Similar information was prepared for radio and newspapers throughout the country.

Brochures about Belize's conservation laws were developed for immigrants and for owners of large parcels of land in Belize.

On-the-road Exhibits

On-the-road exhibits have been developed to reach residents of buffer zone communities and the general public, to educate them about Belize's protected areas, the overall environment, and good conservation practices.

School Visitation System

A system was developed in 1996 to keep track of regular school visits to BAS parks for better coordination of students and school groups. It also enabled the Environmental Education Coordinator and Protected Areas personnel to reach out to more of the primary, secondary and tertiary level schools in Belize.

Environmental Education in School Curricula

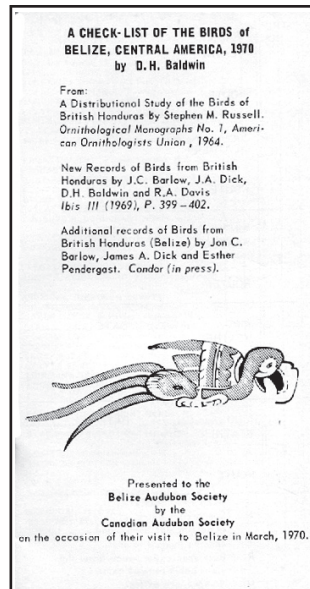
It is our goal to incorporate environmental education in school curricula at all levels. We organize school visits to parks and conduct appropriate environmental training workshops and materials for educators. The BAS Environmental Education Coordinator attends meetings and seminars sponsored by the Curriculum Development Unit of the Education Department, along with other relevant NGOs.

BAS Publications

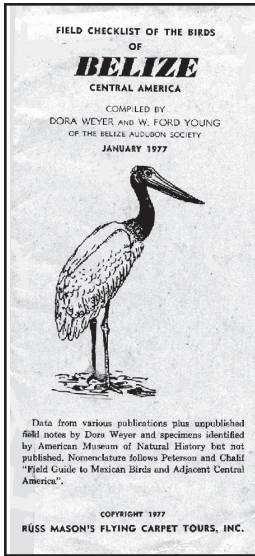
An important aspect of BAS' environmental education has been the publication of educational materials. In the early years materials were prepared for the Radio Spots and reprinted by mimeograph. They were distributed free of charge to the schools, at exhibitions and upon request. BAS contributed fauna and flora maps for the *Atlas of Belize* produced by Cubola Press.

The first **Checklist of the Birds of Belize** was compiled by D.H. (Don) Baldwin of Toronto, Canada. He led a tour of the Canadian Audubon Society to Belize (then British Honduras) in March 1970. At a joint meeting Baldwin made a presentation of 2,000 copies of the checklist to the Belize Audubon Society. The first page of the booklet is a picture of a scarlet macaw that Dr. David Pendergast of the Royal Ontario Museum discovered drawn on a pottery vase at Altun Ha.

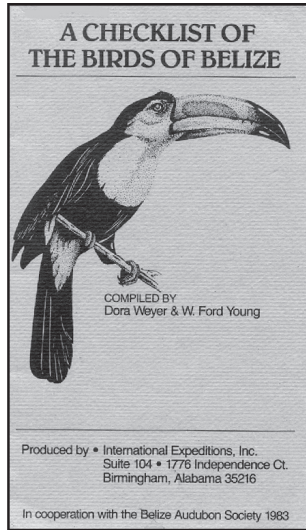
BAS founding members Ford Young and Dora Weyer enlarged and updated the checklist in 1977. Published by Russ Mason's Flying Carpet Tours, this version had a jabiru on the cover and recorded 67 bird families with 518 species. A few additions were



1970 Bird Checklist



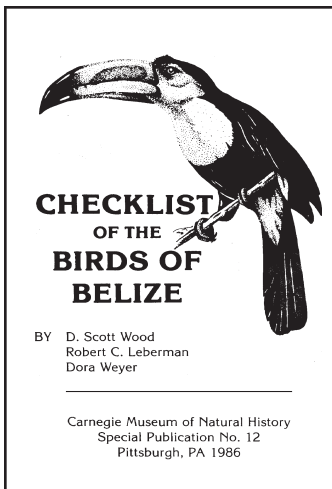
1977 Bird Checklist



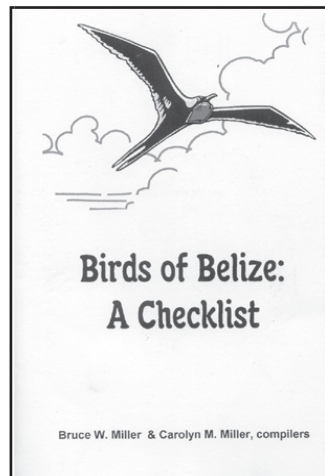
1983 Bird Checklist

made in 1983 and the checklist, which featured the keel-billed toucan, our national bird, was reprinted by International Expeditions.

A revised checklist was written by D. Scott Wood, Robert C. Leberman, and Dora Weyer and published in 1986 by the Carnegie Museum of Natural History. Belize was divided into six geographic areas and the abundance of each bird species was given for each area. This checklist also featured our national bird.



1986 Bird Checklist



1998 Bird Checklist

In 1998 a new checklist was released with a magnificent frigate-bird on the cover. It was compiled by Bruce and Carolyn Miller and published by the Belize Audubon Society.

As many as 575 species of birds have been reported for Belize including many unverified records. The actual number of species for Belize is probably somewhere around 540. (Birds of Belize: A Checklist, Bruce W. and Carolyn M. Miller, 1998)

Why Bother with Birds or How to Make a Bird Garden, a mimeographed booklet written and illustrated by Diane Hasse in October 1974, was BAS' first publication.

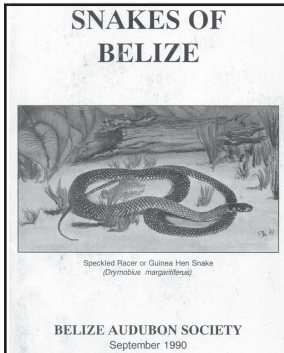
Two books were produced in 1986 by Janet Gibson and the Reef Preservation Committee in cooperation with the Curriculum Development Unit of the Ministry of Education. ***The Coral Reef*** provides basic information about corals and the coral ecosystem. ***My Reef Colouring Book*** makes learning about the reef enjoyable for students. Both were published with funds from the Reef Preservation Fund, which was started by Captain Ted Martin's "Swim for the Reef."

A to Z of Belizean Wildlife was first published by the BAS under a grant for environmental education from the World Wildlife Fund International in 1986. This handbook written for students provided information and illustrations on some of the reptiles, birds and mammals commonly found in Belize. It was mimeographed by the Curriculum Development Unit of the Ministry of Education for use in the schools.

The improved second edition with a lovely colour painting on the cover was produced by BAS Environmental Education Coordinator Clara Cuellar in 1995. It was sponsored by the British High Commission and printed by BRC Printing of Benque Viejo, Belize.

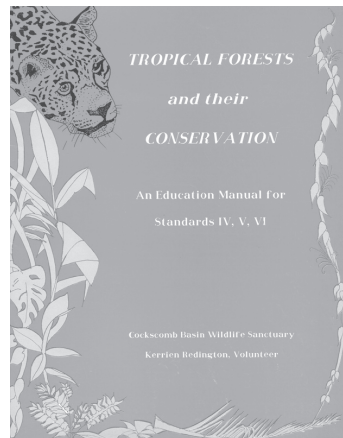


The Community Baboon Sanctuary: A Guide Book was written by Robert Horwich and Jonathon Lyon and published by Orang-utan Press in 1985. The book tells the history of the Community Baboon Sanctuary and describes the black howler monkeys, along with the rainforest, flora and fauna of the Sanctuary. A second edition was published in 1987. This book was expanded and republished in 1990 under the title ***A Belizean Rainforest***.

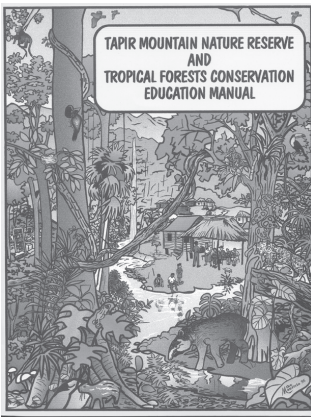
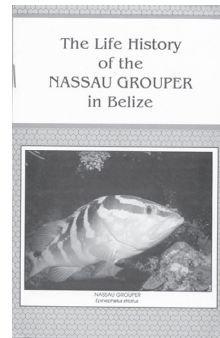


Snakes of Belize, written by herpetologist Dora Weyer and illustrated by Ellen McRae, was published by the Belize Audubon Society, thanks to financial support from the World Wildlife Fund. It was released in September of 1990. This handbook of the snakes of Belize is intended primarily as educational material for schools, but it is of interest to anyone wanting to identify the snakes found in Belize.

Tropical Forests and their Conservation: An Education Manual for Standards IV, V, VI was written and illustrated by volunteer Kerrien Redington from Cornwall, England. Kerry spent two months in the CBWS working on her book, which was published for the BAS by *Producciones de la Hamaca* and printed by The Angelus Press Ltd. The manual provides an introduction to the basic science and conservation issues of tropical forests in terms that children can understand. *Tropical Forests* was first released in the Spring of 1993. The second printing in 1996 had a more colourful cover.



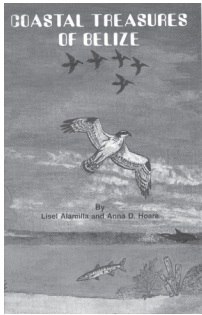
The Life History of the Nassau Grouper in Belize by Jacque Carter and Greg Marrow was produced in 1994 jointly by the Belize Fisheries Department, Ministry of Agriculture and Fisheries, and the Belize Audubon Society with financial support from the World Wildlife Fund. Printed in Belize by The Angelus Press Ltd. This handbook contains helpful illustrations to explain the life of a Nassau Grouper.



Tapir Mountain Nature Reserve and Tropical Forests Conservation Education Manual was launched in 1996. It was written by Peace Corps volunteer Amy E. Smith, illustrated by Mike Mauricio and printed by BRC Printing, Benque Viejo, Belize, sponsored by The Nature Conservancy. This educational manual is full of information and illustrations on what can be found in tropical forests in general and the Tapir Mountain Nature Reserve in particular.

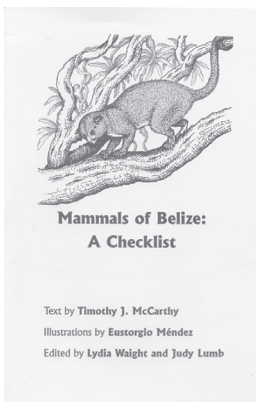
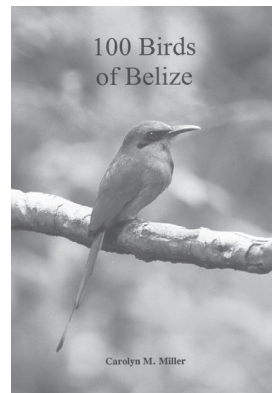
Cockscomb Basin Wildlife Sanctuary: A Guide to the History, Flora, and Fauna of the Cockscomb Basin Wildlife Sanctuary for Visitors, Teachers and Scientists was launched on January 29, 1997. This 350-page book was the work of 23 contributors, authors and artists, edited by Judy Lumb, and published for BAS jointly by *Producciones de la Hamaca* of Caye Caulker and Orang-utan Press of Gays Mill, Wisconsin, USA. Descriptions of the history, flora and fauna of the Cockscomb Basin are included along with maps and guides to the trails of the CBWS and an extensive environmental education section.





Coastal Treasures of Belize was launched in the same ceremony on January 29, 1997. It was prepared by Lisel Alamilla and Anna Hoare, funded by Coral Caye Conservation under the European Union Fund Project and printed in full colour by The Angelus Press Ltd. It is an ideal source of information for teachers and students alike, or anyone interested in learning about the marvels and significance of Belize's coastal zone and related ecosystems.

100 Birds of Belize, published in 1995, features the most common, rare and interesting birds of Belize with beautiful colour photographs, maps and text by ornithologist and photographer Carolyn M. Miller, along with 14 other artists. The birds are described in detail including their habitat, nesting habits, and other notable behaviours. Sponsors included Wildlife Conservation Society, American Bird Conservancy, Vireo, Bird-life International, Massachusetts Audubon Society, Terra Foundation, Tropical Flora and Fauna Preservation Society, U. S. Fish and Wildlife, World Wildlife Fund.



Mammals of Belize: A Checklist was compiled by Timothy J. McCarthy with illustrations by Eustorgio Méndez. It was edited by Lydia Waight and Judy Lumb, published in 1998 for the BAS by *Producciones de la Hamaca*, Caye Caulker, Belize, and printed by BRC Printing, Benque Viejo, Belize. It provides a checklist with detailed illustrations useful in the identification of mammals in Belize.

Brochures

BAS' first brochure was produced in 1982. This brochure has been updated and is still in use. It includes sections on what BAS is, the work of the Society, and the following section.

Why You Should Join

We in Belize have the unique opportunity of learning from the mistakes of other countries which have allowed unplanned industrial development, incorrect disposal of waste, and inadequate protection of rare and endangered plants and animals to destroy much of their natural heritage. We can, and must, maintain our environmental integrity for the enjoyment and benefit not only of ourselves, but for generations to come. Our magnificent coral reefs and islands, spectacular wild areas, and great diversity of wildlife are fast becoming a not too well kept secret in the world of international tourism. They all need to be protected now, and it will take much care and work in the years ahead to ensure that they are all preserved and used wisely. The Belize Audubon Society is committed to the cause of conservation, but the support of the Belizean people is necessary. Government, business organizations, institutions whether dealing specifically with environmental matters or not, and individuals, all need to be concerned in preserving what is good in the environment, and in developing it in such a way as to maintain, and if possible to improve, the quality of life for themselves and for future generations. The Belize Audubon Society would welcome as members all who are concerned with preserving our natural heritage. (April 1982 brochure)

During his time as Executive Director, Mickey Craig produced brochures for each of the parks that BAS managed at that time and a brochure for the Reef Preservation Committee on the three species of marine turtles found in Belize. These brochures are still in use more than ten years later. Later brochures were made for Blue Hole National Park and Tapir Mountain Nature Reserve.

Posters

RARE Posters

In 1983 Rare Animal Relief Effort (RARE) President Gerald Lieberman donated posters showing a large painting of a jaguar along with a conservation message in English and Spanish. RARE is a non-profit, volunteer organization devoted to endangered wildlife.

Turtle Posters

In 1985 Dr. C. J. McCoy of the Carnegie Museum of Natural History made a donation for the printing of two turtle posters designed by BAS.

Esso posters

In 1983 Esso Standard Oil Ltd. donated sets of four posters, showing a jaguar, toucan, tapir and a yellow-headed parrot. Some of the posters were distributed free to the schools and some were sold to provide funds for reprinting.

Reef Preservation Poster

The Reef Preservation Committee of the BAS, in conjunction with the Caye Caulker Branch of the Belize Tourism Industry Association, produced a poster in 1987, emphasizing the need to protect the Belize Barrier Reef and its attendant lagoon ecosystems including mangroves, sea grass beds and caves.

Jabiru Poster

Also in 1987, a large poster showing a drawing of the jabiru, with information about the bird, was designed and printed by BAS. It was sold in support of the Crooked Tree Wildlife Sanctuary.

A Guide to Belize and Its Wildlife

In 1990 the BAS produced the brochure, *A Guide to Belize and Its Wildlife*, with support from Programme for Belize. The guide gave a brief description of Belize's history, culture, geography and the major sectors of agriculture, forestry and fisheries. It focussed on the country's ecosystems, flora, insects and mammals, with a guide to Belize's protected areas.



The brochure (left) opened out to form a colourful poster on the Birds of Belize (right).

Polaris Poster

In 1991 a colourful reef poster was donated by *Polaris*, a cruise ship of Special Expeditions NY. It was designed by the Half Moon Caye/Reef Preservation Committee and sold to raise money for the Reef Preservation Fund.

It All Began with the Boobies

In 1993 BAS paid for printing a poster entitled “It All Began with the Boobies” designed by Gerald Chavannes. The names of all the protected areas managed by the BAS were listed in small print.

Margay Poster

A margay poster was designed by Tony Rath using one of his photographs and funded by Esso Standard Oil Ltd.

