NATIONAL NETWORKING

The Asian Regional Network of International Zoo Educators A.R.N.I.Z.E. is a very small operation which runs out of another office on “spare time”. It is dependent on grants and donations which are not easy to come by.

Even with a very large operation and plenty of money, ARNIZE could not do so as good a job of networking the zoos of individual countries as a zoo in the same country could do. That is why we said in the first issue that “networking Asian Zoo Educators is not going to be possible without a great deal of help from people nationally.” We are still looking for you to serve as Country Representatives from the Asian countries which more or less make up the “Orient”. These are the countries covered by the Asian regional representative.

A Country Representative ideally should be professional educator from the zoo community, but in countries where that is not possible any person who is interested, who has a good relationship with the zoos of their country and who is willing to do some work could be the representative. We prefer that the Country Representative come forward on their own but when we perceive someone who would be good for the job, we are not shy about asking.

In the year 2000 a new Asian Regional Representative will be elected from the members of IZE who live in Asia. Being a Country Representative would be a good way to become known and show your ability for this position.

Some of the projects which could be undertaken by a Country Representative are:

- coordinating country and regional training with the Regional Rep
- translating some materials into your local language
- distributing material to all the zoos in your country
- suggesting other people and institutions in your country who should be part of the network
- sending news of the Region for the ARNIZE Newsletter and stimulating other members to contribute to it and the IZE Journal
- informing ARNIZE Office of cultural taboos so we don’t make too many mistakes!
- collecting information, ideas, opinions from their country to help IZE input into the 2nd Edition of the World Zoo Conservation Strategy
- facilitating the development of education programmes in new institutions

- sharing of model education programmes appropriate for the region so they can be distributed to all

Think it over. Volunteer or nominate yourself if you like, or suggest someone you think would be appropriate.

The country rep should come from a zoo or perhaps be sponsored by a national zoo association which would underwrite postal other other costs. You will have to raise funds within your country also if you want to be truly effective. What we hope is that this will lead to a National Association of Zoo Educators only for your country’s zoo ed professionals.

If a zoo is the only zoo in a particular country, it will automatically be considered the Country Rep. If countries in Asia which have more than one zoo or animal viewing facility are India, Pakistan, Sri Lanka, Singapore, Indonesia, Thailand, Taiwan, Japan, China, Malaysia.

Some National Network initiatives

SINGAPORE

The Jurong BirdPark, Singapore, organised a sharing session on educational efforts in the country at the suggestion of IZE Regional Rep, who visited Singapore facilities last October. The sessions were planned as short visits of each facility and provision of a folder of educational materials on two different days last January and February. The Education staff from Underwater World, Butterfly Park & Insect Kingdom, Sungei Buloh Nature Park and Jurong BirdPark met up, visited each other’s attraction and shared some of their educational efforts and problems faced. Educational materials were also shared. It was an educational and enjoyable experience we had some fun learning from each other. More importantly, a good rapport was built. Unfortunately, Singapore Zoo and Night Safari could not participate in this sharing session. All wished that they had time to meet up more often from their busy work schedule; it is difficult to find a suitable time whereby everyone can come together. Anyway, it was a good starting point for and participants claimed to have learnt much because the suggestion and initiative of ARNIZE. Submitted by Soo Mel, Education Officer, Jurong Bird Park

TAIWAN

Jessie Chi of Taipei Zoological Gardens has agreed to serve as ARNIZE representative for Taiwan. She is joined by staff officers Wen-chih Lin and Liyi Cheng.
NEW A.R.N.I.Z.E. MEMBERS

Aengals, R., Project Officer Education, 
Chennai Snake Park Trust, 
Rajbhavan Post, Chennai 600 022, 
Tamil Nadu, INDIA

Bharati, A.R. Dy. Conservator of Forests, 
Sanjay Gandhi National Park, 
Borivali (E) Mumbai 400 066, 
Maharashtra, INDIA

Bhalla, Satya Priya Gautam, 
Corbett Nature Club, 
Bhalla Bldg., Barpur Road, 
Kashipur 244 713, U.P., INDIA

Datta, Soumyadeep, 
Director Nature's Beckon, 
Assam State Zoo Ward No. 1, 
Datta Bari, Dhubri 783 301 Assam INDIA

Fujisawa, Tomomi, 
Zoo Keeper and Educational Advisor, 
Kurunuma, Higashi Asahikawa, Asahikawa, 
Hokkaido, 078-8205 JAPAN

Holba, Jit, General Curator, 
Jl. Serma Cok Ngurah Gambl, 
Singapadu, Batubulan-Gianyar-Bali, 
INDONESIA

Ghalib, Syed Ali, 
Zoologist, Zoo-cum-Botanical Garden Zoological Survey Department 
Block 61, Pak Secretariat 
Shah Rahl-e-Iraq, Karachi 74200 
Islamabad, PAKISTAN

Gupta, S.K., 
Director, Bhawan Birsa Biological Park, 
Van Bhanav, Doranda, R.O. Hinoo, 
Ranchi, Bihar INDIA

Jain, M.S. Director, 
Tata Steel Zoological Park, 
Jamshedpur, 831 001, Bihar INDIA

Kalatrasan, K., Director, 
Chennai Snake Park Trust, 
Rajbhavan Post 
Chennai 600 022, T.N. INDIA

Karlapa, V. P., 
Forester 97/4, Near ITI, 
Housing Colony, 
Maddikeri 571 201, Karnataka, INDIA

Karkaria, Dhun Hema, 
Karizma Communication 1, 
Hansol Co. op Housing Society; 
Opp: Sardarnagar Police Lines Hansol; 
Ahmedabad 382 475, Gujarat INDIA

Kawamura, Sanae, Zoo Keeper, 
Edogawa Natural Zoo, 
3-2-1, Kikukasai, Edogawa-City, 
Tokyo 154-0081, JAPAN

Kong Khiam Wichit, Veterinary 114 
Chalmonghkhol, Muang 
Nakhon Ratrasima Zoo 
3000, THAILAND

Maradu, Dr. M.K., 
Zoo Superintendent, Rajkot Zoo, 
Rajkot Municipal Corporation, 
Aji Dam-Bhavnagar Road, Rajkot 360 003 INDIA

Marinuthu, Rangasamy, 
Post Box No. 63, 
B.S.B. 356670, BRUNAI

Matthew N.M., Forest Range Officer, 
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Kozhikode 673528, Kerala INDIA

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Feng-Huang-Ku Bird Park, 
1-9 Ren Yih Road, 
Lu Kuo, Nan Tou, TAIWAN 558

Noottong, Mr. Taiwee, 
Wildlife Research, 
Wildlife Captive Breeding, 
Div. Royal Forest Department 
Chatuchak, Bangkok 10900, THAILAND

Poonia, Manil Ram 
Dy. Chief Wildlife Warden, 
Jaipur Zoo, 
Jaipur 302 004, Rajasthan INDIA

Prana, Dr. Made, Sr. Manager TMII, Jl. 
Raya Taman Mini 
Jakarta (Timur) 13560 INDONESIA

Rajarathnam, R. Deputy Director 
Chennai Snake Park, Rajbhavan Post, 
Chennai 600 022, T.N. INDIA

Rathinasabapathy, B., Biologist, 
Coimbatore Zoological Park 
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Coimbatore 641 004, T.N. INDIA

Sangwita, Dr. Puwanart, 
Vice President, 
Safari World Public Company Limited, 
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Samawatwakot Klongsaw 
Bangkok 10510 THAILAND

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KARE, Kindness to Animals and Respect for 
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Kailash Part I, New Delhi 110 048

Shrestha, Geeta, Coordinator 
FOZ KMTNC/Central Zoo, 
Post Box 3712, Jawalakhel, 
Kathmandu, NEPAL

Srivastava, Dr. D.S., Secretary, 
Bhada Zoo Nature Conservation Society 
ITO Road, Redma, Daltonganj 822 101, 
Ranchi, Bihar INDIA

Tiempo, Felina A., 
Officer-in-charge SI-Centrop 
A.Y. Reyes Zoological & 
Botanical Garden, Stilmann University 
Dumaguete City, PHILIPPINES

Yong, Lee Jae 
Veterinarian, Children's Ground Park 
18 Noong-dong 
Kwang Jin Gu Seoul KOREA

Xiu-Shan, Wu 
Education and Research Department 
Beijing Zoological Garden 
Beijing 100044, CHINA

Xingin, Wang, 
Veterinarian & Lecturer 
Guangzhou Zoological Garden 
Xianlie Zhong Road, 
120 Guangzhou, CHINA

ARNIZE MEMBER INFORMATION

There are 117 members of ARNIZE as we go to press. Not all are zoo personnel. Some belong to NGO's, wildlife service, welfare organisations, etc.

However there are 68 South, South East and 
East Asia zoos of 17 countries represented in 
ARNIZE. The number of zoos and of 
members are listed in the table below.

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<th>Country</th>
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Korea

from Chang-soon Chol, Zoo Educator
Everland zoological Gardens
email: copal@samsung.co.kr

Some Educational Activities in
Everland Zoological Gardens

Animal Academy
The purpose of the Animal Academy is to help people escape from
the unnatural reality of urban life with its obsession with industrialisation. The Animal Academy opened in 1992 to communicate
emotional relationships with nature and teach importance of
biodiversity.

The academy takes Kindergarten and Elementary School students in
groups or as individuals once a year during summer. The
program runs from 10:30 A.M. - 3:30 P.M and takes from 20 -
400 people per day. There are about 50 people in a group or
“team.” Booking is made through the zoo.
Tel: 82-335-320-8741 -2, 8751 -2
Fax: 82-335-320-8577

The Programme consists of several educational experiences:
- Safari World, Sea Lion & Chimpanzee Show
- Primate House visit, lecture and Q&A with Everland animal
trainer
- Audio visual education
- Special class for the rare and fierce animals, e.g. White Tiger and
Pere David’s Deer
- Live animal education - opportunity to feed selected animals in
live situation (Elephant, Rabbit, Sheep, Goat, etc.)
- Special course -- in addition to public education we have research
projects on tiger, etc.

Daily programme
10:30 : Arrive at main gate. Move to the zoo. Orientation
(Schedule, Introduction)
10:50-11:00: Safari World
11:00-11:20: Elephant House: Introduction to elephant & giraffe
11:30-12:30: Lunch
12:40-13:00: Attraction Ride (Amazon Express etc.)
13:10-13:20: Petting Zoo: Introduction, feeding, touching...
13:50-14:10: The Children’s Zoo / Viewing the infant tiger
14:20-14:45: The House of Monkey / Viewing the primates
15:00-15:30: The Lion Show / Introduction of sea lion
15:30: Conclusion of programme. Start back to main gate

Children’s zoo
Our Children’s Zoo is to promote children’s interaction with
animals. We keep a number of cuddly and friendly animals at a
special exhibition area in which children can get a close-up look at
selected wild animals. A special touch and feel area offer opportuni-
ties to interact and play with some of the animals.

At the Zoo’s nursery, young visitors watch babies of many different
animals being cared for by zoo keepers and can see the wildfowl’s
eggs hatched in the incubator. Many exhibits educate children to
become more aware of nature by enhancing their understanding of
animals and nature.
- Raptors, are the vultures, eagles, hawks, and falcons. They are
meat eaters, feeding on small mammals and birds using their
powerful hooked beaks and sharp talons. The Children’s zoo has
eleven birds of prey of 7 different species.

Japan

Submitted by Keiko Iwamura, Member, Japanese Assn. of Zoological
Gardens
Annual meeting Report of the Japanese Association of Zoological
Garden and Aquarium Educators, JAZAE
Established 25 years JAZAE had its 40th meeting on 9th and 10th
June at Kanagawa Prefectural Museum of Natural History/Odawara
City, Kanagawa. Formerly it was held twice a year, now annually.
Over 100 members and non-members attended. JAZAE has now
154 members in total.

The Journal of JAZAE of 1999 has been distributed. It contains
nine reports from last meeting in 1998. It is written in Japanese.
The contents are as follows:
- Parent-Child conversation and infant’s behavior at the
contact (petting) corner (zone), Edogawa City Zoo
- Summer program “Kids Aquarium”, Sunshine International
Aquarium
- Summer school for visually handicapped children, Ueno Zoological
Garden
- A tour around keepers’ yard and Interpretation at Port of Nagoya
Aquarium
- Marine Science Lab/Marine World Uminonakamichi
- What kind of image do high school students have of animals -
gorilla, sardine, tuna fish, penguin? By M. Fukuda, high school
teacher. etc.

PAKISTAN

LAHORE ZOO

This news item is submitted by Umna Khan, Education Officer at
Lahore Zoo since October 1998.

Lahore Zoo has the honour of being first zoo in the country to offer
an education programme. This project was actually started by WWF,
Pakistan with the support of a private school named as Beaconhouse
Public school.
From October to April about 60 school groups were entertained and each consisted of 30 - 35 number of students. An A6 size booklet has been developed that comprises animal related worksheets. This booklet is about 20 pgs. Along with this a teacher’s resource has been developed so that teachers accompanying the students should be able to assist them in the activity after the presentation of the Education officer. This education material is developed both in Urdu and English. As a part of this project animal fact sheets are prepared and as soon as they are sponsored we can distribute them free among the visitors. Actually we are planning to declare each month an animal 'Animal of the month' and during that whole month fact sheets will be distributed and the animal enclosure will be decorated.

We are putting up animal information boards in the zoo for all the main animals. These boards will cover all the interesting information of the animal. We have got the sponsor and soon these boards will be displayed in the zoo.

ISLAMABAD - RAWALPINDI
Submitted by Zohare Ali Shariff, Jungle Kingdom Theme Park & Zoo email -- zohare_s@hotmail.com

As you know, most zoos in the world bring out some posters covering their animal collection. Some zoos like Zoo Negara in Kuala Lumpur have really outstanding posters. What we did was to write to as many zoos as we could throughout the world, requesting them to send us their posters. The response was fairly good and we ended up with over one hundred posters from some 20 zoos. All the posters were mounted by us at our cost. Then we prepared banners and information panels (on chipboard) and were ready for our Exhibition.

The posters were divided into categories, according to the animals displayed on them. Thus we had categories (sections) of carnivores, herbivores, omnivores, primates, birds, reptiles and a section we called mixed groups, containing all posters that displayed several different species. The banners and information panels were also prepared according to these categories. For example the Carnivore information panel was about 1.5 by 0.75 meters and briefly explained what are carnivores and their role in the ecological balance.

The exhibition was held under a large shamiana. There was a large entry/reception area from which a one-way walking aisle led visitors to the first section and then to the next one and so on, ending up again at the reception area. The sections were formed by vertical walls of shamiana, with the framed posters hung from steel wires stretched between the poles of the vertical shamianas.

Once visitors went through the whole exhibition and returned to the reception area, they were able to participate in the following activities:

01. Each visitor could vote on the poster they liked best.
02. Interested visitors could participate in a “lucky dip” quiz competition. A nominal fee of five rupees was kept for participation. The participant had to draw out a slip of paper at random from a carton. The slip of paper contained a question, the answer to which was given on the several information panels in the Exhibition. Thus if the visitor had read the panels while touring through the exhibition, he/she would have been able to answer the question right away. For correct answers a small prize was given.

Our International Posters Exhibition was really for all visitors to our facility. However several school groups also visited us. The Exhibition overall generated a lot of interest. For not only were most of the posters very beautiful, but also because the visitors got to see many animals, at least in large colourful pictures, that they had not seen otherwise. The Exhibition lasted a week and then the posters were all stored away to repeat the exercise after some time.

In our country there is as yet no zoo association. In a country with a zoo association, such an exhibition could be organized by the association, with all members sharing the cost. The costs we incurred were around one hundred thousand rupees. The mounting/trimming of each poster costed rupees three hundred and fifty on the average. Then there was the cost of hiring of shamianas and other fixtures for a week. Then the cost of getting the information panels and banners made. However if several zoos are participating, the exhibition can travel from one zoo to another and the total costs can be shared amongst all. Also sponsors may be sought.

We believe zoo education should focus on a "learning through fun" approach. If a little fun or entertainment is included in the educational activity, then the activity not only becomes much more interesting, but also the "information retention" ratio improves.

HONG KONG ... KADOORIE FARM AND BOTANIC GARDEN, Hong Kong

Judy KIU, Senior Education Officer, Kadoorie Farm & Botanic Garden, Lam Kam Road, Tai Po, New Territories, HONG KONG. Website -- http://www.kfbg.org.hk

In following our mission, “to increase the awareness of our relationship with the environment, by helping to maintain and sustain the Earth in peace and contentment and encouraging an appreciation of life in all its diversity”, we had recently held several activities for the local community.

Two Treasure Hunts were held on in February and April 1999. With 33 schools participating, 165 students aged between 12 to 18 had took part in this activities. Teams of students were directed to various educational displays at KFBG by means of educational clues. Native animal and plant themes were incorporated in the activities and participants moved around quickly to obtain clues at each checkpoint. The team which got most clues correct in the shortest time was winner. About 20 volunteers helped so the Treasure Hunts ran smoothly with very positive feedback from students and teachers.

In order to increase students’ awareness of the importance of native tree species in re-establishing the forest ecosystem and to actively involve them in a local conservation project, the Native Tree Planting Scheme was commenced in December 1998 and will continue through to July 2000. Each of the 15 participating schools was provided with 100 seedlings to nurture over a period of six months, an Information Pack and a briefing at the start of the Scheme. The Tree Planting Day was held on 3 July 1999, with the help of more than thirty volunteers. A subsidiary programme of the Scheme, the Name Tag Design Competition was held to increase interest of students in native trees. A tree caring day will be held in February 2000, such that the students can clear the weeds at their own tree planting plots, count the number of surviving trees...
trees and measure stem heights and basal diameters. KFBG also took part in the Annual Hong Kong Flower Show held in March. The KFBG display focused on the Illegal Wildlife Trade in Hong Kong and the region, specifically, trade in orchids, medicinal herbs and wild animals and their parts. To bring these messages to the public, we simply used laminated signs and big, attractive photos which was already a great success. At the same time, we incorporated our educational displays into the horticultural landscape in our area.

We also take an active role in the Hong Kong Environmental Education Group (HKEEG, which includes five government departments and six non-government organizations), from which the production of the second edition of the HKEEG resource booklet has been approved by the Government's Environment and Conservation Fund, and the date of completion will be 30 September 1999. Booklets will be sent to schools, youth centres and green groups to let them have more information on the green organizations in Hong Kong and their contacts, resources and organized activities.

In the coming year 2000, we are going to organize Treasure Hunts and another Native Tree Planting Scheme due to the success of this year. Moreover, many in-house educational displays such as the Chicken House Display, Reptile Sanctuary, Natural History Display, Medicinal Herb Garden, Tea Garden and Orchid Garden will be opened after the completion of educational materials.

OCEAN PARK, Hong Kong
Joyce Kwok, Education Officer, Ocean Park, Aberdeen
Since Ocean Park began its educational programs in 1992, more than 135,000 students have joined our educational programs.

Based on the Park's animal and plant collections, the original five educational tours, Whales & Sea lions, Fishes, Plants, Birds and Butterflies were developed for students aged 9 to 12. In 1998, a new educational tour, Biodiversity and Conservation at Ocean Park, was launched for students aged 13 to 15. Students are able to choose from 10 different subject areas, a topic to explore. Outreach programs for students aged 6-9 are also available:

With the arrival of the two Giant Pandas at The Hong Kong Jockey Club Giant Panda Habitat (GPH) of Ocean Park in March, a series of educational programs on this lovely animal were launched to arouse public awareness on the Giant Panda and its conservation. Educational display panels were installed at the queue area of GPH to deliver messages about biology and conservation of Giant Pandas. Educational Programs include:

1. Teachers' Training
   Seminars and site-visits to GPH were arranged for about 400 primary and secondary school teachers in April and May, 1999. This training aimed to introduce general knowledge on Giant Panda and the GPH as a resource for teaching and extra-curricular activities.

2. Education Program
   Two educational tours on Giant Pandas were developed for students aged 9-12 and 13-15 respectively. Through on-site observation, interactive games and innovative presentation with interactive computer program, students learned to appreciate and understand Giant Pandas and how conservation in their daily life can help.

3. Narration Program
   Information on Giant Pandas is delivered for visitors with the goal to educate visitors to respect these animals. Specimens of bamboo, skulls and Giant Panda stool are displayed before visitors enter the GPH.

4. Road Show
   A drama, geared towards children was performed for disseminating giant panda educational and conservation messages. Exhibition panels and photo-taking booth supported the drama. The road show visited three shopping centers, with all donation from the photo-taking booth being donated to the Hong Kong Society for Panda Conservation.

VIETNAM
Vo Dinh Son, Saigon Zoo, Saigon, Vietnam
There is a good news from Saigon Zoo on 1 September 1999, Saigon Zoo established a Department of Conservation Education.

TAIWAN
LiYi Cheng, Education Manager, Taipei Zoological Garden, 8 F-8, Sec. 3, Mingcheng E. Road Taipei 104 Taiwan, ROC
Our educational activities recently have been
1. February -- Education event of Rabbit Chinese New Year includes exhibits and interpretive talk.
2. From February to June: Guided walk for primary school students. Total number of attendants is 15,000 students.
3. 4/24 -- 8/25 -- Native fresh water fish displays includes interpreter training, interpretive talk, education activities for children, and a brochure.
4. 5/5 -- 5/26 -- Environmental education campaign for teaching Entomology. A series of courses were designed to train school teachers to teach Entomology by using the facilities in Taipei Zoo. After the courses every attendant designed a learning sheet. The class notes and study sheets were edited and collected to be a book.
5. 7/1 -- 7/31 -- Dinosaur education program includes brochure and give-away contest.
6. 7/24 -- 10/31 -- Insects displays
7. 8/14 -- Opening Ceremony for Koala display. The education event in the Opening Ceremony was a conservation fair. The education publications consisted of a brochure, a booklet, and a book. The education program includes a web site, summer campaign for children and parents, and interpretive talk.

INDIA
GWALIOR ZOO, INDIA
Dr. Rali Saxena, Gwalior Zoo, Gwalior, India
During Wildlife Week, emphasis was given on educating teachers/students about the role of zoos in conservation of fauna and flora, breeding endangered species and educating people about ecosystems. The “Zoo Patrol Kit” provided by Zoo Outreach Organisation free of cost were distributed among students. Daily lectures by conservationists were organised. A large number of students visited the zoo.

VANDALUR, CHENNAI
Asia -- Newsletter of the Asian Regional Network of I.Z.E. - Volume 2, Issue 2, October 1999
from Krishna Kumar, Director and N. Baskar, Zoo Educator
Arignar Anna Zoological Park <a>xarptzoo@md4.vsnl.net.in></a>

Our zoo is into very serious Zoo Education business. We have set ourselves target and are trying our best to achieve it. During the year 1998-99, we trained 368 teachers 1563 students. We brought out brochures on Zoo education programmes to be conducted regularly. Over 5000 zoo education brochures have been distributed to all schools and Colleges in Chennai and the visitors.

The response is good. Our Zoo education programme is not only for students and teachers and also for corporate sector, family member, and anyone who is interested in Nature education. In 1998-99 a zoo club was launched for students and is working very effectively. The zoo outreach programme 1998 - 99 was a big success as we covered 5 villages around the zoo.

Our targets and goals set for 1999 - 2000 are:
1) to start a Zoo School facility on 30 October 1999.
2) to circulate a self-explanatory Zoo Education Programme
3) to bring out educational brochures and educational kit for school students to cover topics of interest, such as wildlife conservation in India, significance of captive breeding programme, animal

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**ZOO EDUCATOR TRAINING FOR ASIAN REGIONS AND NATIONS**

All Zoo Educators without except see the value of Training. In Asia, zoo education is a new or nil subject at many zoos so training is highly desirable.

One of the major objectives of ARNIZE is to catalyze and facilitate zoo educator training in Asia either on a national or regional basis. The following is a progress report on our training initiative.

Although a few zoo biology courses have contained a training component and the Indian Zoo Management course always allocated a couple of days to zoo education, there has never been an Asian regional, sub-regional or national zoo educator course. India perhaps has done some work in this regard by organizing 10 capsule courses in different regions of India over a period of about three years. Also the Jersey Wildlife Preservation Trust had organized two long term comprehensive International Zoo Educator Training Courses at Jersey Zoo in 1991 and 1993 at which a number of Asians participated. One of the course tutors both years was Sally Walker, current IZE Asian Regional Rep and Convener of ARNIZE.

ARNIZE has made several appeals for collaborators in Zoo Educator Training and got a wonderful response. Although these courses are not 100% finalized, here is a progress report:

**Regional**

South East Asia -- the South East Asian Zoo Association (SEAZA) will collaborate with ARNIZE to organise a Zoo Educator Course for SEAZA members zoon sometime next summer. The course will be held at Singapore with all the five animal viewing facilities of Singapore acting as Resource Centres and their personnel acting as Resource Person. The training will consist of didactic lectures, participant presentations, and hands-on workshop projects in the mornings and a visit each day to a different animal viewing facility where the Education Staff will prepare a comprehensive presentation.

on some aspect of Zoo Education followed by a tour of their facility, highlighting the educational programme there.

South Asia -- the Central Zoo in Nepal has agreed to host a Zoo Educator Course for Southern Asian Zoos which covers India, Pakistan, Bangladesh, and Sri Lanka (Bhutan and Maldives do not have a zoo). The course will be held in the Central Zoo Visitors' Centre. Resource persons will be pulled from within the region to the extent possible... from Central Zoo itself which has a new but active Education Department and Friends of the Zoo, from the Lahore Zoo Education Department, from the Zoo Outreach Organisation, Arignar Anna Zoo, Centre for Environmental Education and Wildlife Institute of India and others in India and others as appropriate.

National

The Taipei Zoo Education Department is interested in conducting a Zoo educator course for the five zoos of their country. Taipei Zoo has a very large and well-developed Education Department of which three of their staff are members of ARNIZE, Jessie Chi, Wen-chi Lin, and Liyi Cheng.

The three zoos which will serve as organisers and hosts have been sent a copy of the Report of the International Zoo Educator Course held at JWPT in 1991, the Zoo Educator Manual Draft which was produced as a result of the 1991 and 1993 courses at Jersey, and the Zoo Ed Book. The cost of copying and posting these items has been borne by the Twycross Zoo Association and Education Department, U.K. Funds were raised by conducting an exhibition and face-painting contest, which are educational activities in themselves. Thanks very much to Twycross.

ARNIZE will have to raise many such donations to subsidize the Regional and National Zoo Educator courses envisioned.
Profile of ARNIZE Member Zoos

All Asian Zoos would have received an ARNIZE Membership from which also included a simple survey with questions to ascertain some basic facts about their zoo.

The survey was biased in that the information is taken only from forms that were returned to us by people who became members of ARNIZE. Therefore, we can probably conclude that only zoos with a very high interest in education in the first instant would have returned the form. Further, of 700 zoos, it is estimated that more than half of them are small, non-English speaking, or non-mainstream zoos. This does not mean “roadside attraction” as many of these zoos are government zoos; it does mean that these zoos are not in a position to conduct education programmes. Nonetheless this is the first survey of this kind ever to be conducted in Asia so, although it was very simple and covers only a fraction of the zoos in Asia, we know more about Asian zoos that we did before.

Out of 700 letters sent to Asian zoos in 21 countries, we received 116 forms back from 19 countries. We permit, and in fact encourage, people who are only peripherally involved with zoos as well-wishers, volunteers, education professionals, animal welfare workers to join ARNIZE so before tallying up the results of the survey we eliminated these members. The reason for this being that most of the questions specifically concerned zoo administrative and financial matters and were not applicable to others.

A total of 116 forms were returned over a period of about one year. Incidentally, we are still receiving forms for ARNIZE membership from that initial mailing.

Of these 116 forms or Members, we found 80 were returned by actual animal facilities with a staff and where the public visit, e.g. with potential for zoo education as we understand it. Of these more than one staff from a zoo filled a form so the total number of zoos was 66 which is our data base.

These are the facts which emerged from analysis of the questionnaires:
- 25 of the 66 zoos (37.8%) have a full-time educator
- 22 of the 66 zoos (33.3%) have a person in “additional” charge (Biologist, Veterinarian, Zoo Superintendent, Zoo Assistant were listed as holding “additional charge” for Zoo Education)
- 19 of the 66 zoos (28.6%) indicated that no person was designated for education
- 19 of the 66 zoos (28.8%) said that Education was NOT a priority in their zoo
- 57 of the 66 zoos (86.4%) replied that Education was a priority and they wanted to make their zoo more effective in education.
- 26 of the 66 zoos (39.4%) produce a zoo guidebook
- 47 of the 66 zoos (71.2%) produce zoo brochures
- of these 56 zoos,
  - 16 zoos produce brochure in 1 language
  - 32 zoos produce brochures in 2 languages
  - 2 zoos produce brochures in 3 Languages
  - 2 zoos produce brochures in 4 languages
  - 4 zoos produce brochures in 5 languages
- 50 of the 66 zoos (75.8%) have a board identifying the animal on most of their animal enclosures
- 45 of the 66 zoos (68.2%) have other information about habitat, life cycle, etc., on boards on most of the animal enclosures
- 51 of the 66 zoos (77.3%) have special programmes for schools (Invitations, free admission, special events)
- 37 of the 66 zoos (56.1%) have other wayside exhibit and programmes at the zoos. These were listed as
  - Slide shows
  - Speaker in Mini Train
  - Video
  - Lectures
  - Student work at the zoo protecting animals

The zoos answered the question of why they do not do more for education as follows:
- Lack of budget - 37 zoos
- Lack of personnel - 33 zoos
- Lack of ideas and material - 25 zoos
- Lack of time - 11 zoos
- Lack of training - 2
- Lack of space - 1
- Lack of initiative by superior officers - 1

What can we conclude from this information? One thing is that even many highly motivated zoos lack a dedicated Education Officer or person holding additional charge. Brochures are much more used than guidebooks, possibly due to cost and the multi-language requirement. Most of the zoos seem to rely more on instructional boards on enclosures and organised school programmes than other educational techniques.

Lack of personnel and budget was felt to be reason for not being more active in the educational field. Lack of ideas and material as well as training was also a significant reason.

Survey of Educational Techniques

Another survey was conducted by sending another, much more elaborate questionnaire to everyone who had joined ARNIZE and filled the first questionnaire. This questionnaire consisted of a list of 157 common educational techniques used by zoos around the world with a series of blanks to tick. They were asked to tick 1) if they had used the technique before; 2) if they had tried and found it was successful; 3) if they would like to receive information about a technique.

In this survey only 20 zoos responded.
Box 1) Tried: Of these 20 zoos, from 1 - 14 zoos had tried at least one of all but 15 of the 157 techniques, indicating a very wide variety of educational techniques in use in Asian Zoos.
Box 2) Successfully tried: Of the responding zoos, from 1 to 6 zoos answered that they had used at least one of all but 7 of the techniques. This may indicate a reasonable success rate in a variety of activities.
Box 3) With more information: More information on all but 7 of the 157 techniques was requested by from 1 - 6 zoos. We are finding it difficult to fill these requests and hope that some of them were answered by the ZOO ED Book, which covers many aspects of Zoo Education.

Zoos which returned these questionnaires are:
- Arignar Anna Zoo, Chennai, T.N., India
- National Zoological Park, New Delhi, India
- Saphranala Zoo, Argata, Tripura, India
- Gwallor Zoo, Gwallor, India
- Madras Crocodile Bank, Mamallapuram, India cont. on p. 9
General

12 March 1999
Enclosed please find some of our educational material for your reference. We will appreciate help to improve our knowledge of zoo education techniques. Thanks for giving us the opportunity to join ARNIZE. We look forward to a fruitful partnership. We have a website http://www.gatesway.com/pheagle

Angello A. Cereno, Pgm Mgr.
Conservation Education
Philippine Eagle Foundation, Inc.
Garnet Cor Diamond Sts.
Marfori Heights Subdivision
8000 Davao City, Philippines

17 April 1999
It was a joy to see all the addresses of the IZE members. As the newly appointed Education Officer of Zoo Negara Malaysia I am excited about corresponding with people who do the same thing I do, e.g. create awareness among the public as to the fragile status of our wildlife. I hope we can share ideas, talk about current issues or just say "hello". Zoo Negara receives at least one million visitors a year and as such is one of the most important centres for nature education in Malaysia. We have recently expanded the Education Centre and are planning to have a permanent exhibition in the large hall as well as a new library for children. We also plan to open a Children's Zoo. Much can be learned from the programs carried out in the zoos of the world so I look forward to hearing your ideas and advice. I would like samples of your educational material for display in our centre or for inspiration.

Andora Fredericks, Education Officer
Zoo Negara Malaysia
Hulu Keland 68000 Ampang,
Selangor Darul Ehsan, Kuala Lumpur, Malaysia

Mail ... about the Zoo Ed Book

1 June 1999
Thank you for the copy of the ZOO Ed BOOK, Part 1, which is an extremely welcome and resourceful publication, that will definitely help enhance our approach to environmental education both here at the Crocodile Bank and in the Andaman Islands. This book should be used in all zoos and -- why not national parks, sanctuaries, and schools. We will start using it from next months when our programme with WWF starts.

Harry Andrews, Centre for Herpetology
Madras Croc Bank Trust
Malallapuram, PB 4 8 TN 603 104

23 June 1999
I am pleased to receive a Zoo Ed Book. I think this book will be an excellent resource for our zoo and myself. It is nice collection of the literature related to Zoo Education program. Once again thank you.

Ang Phur Sherpa
Conservation Education Officer
KMTG Central Zoo, Katmandu

7 April 1999
At the Indian Institute for Mass Communication where I teach, our students are involved in creating campaigns for various issues concerning the society. A couple of years back the students made a campaign on zoo education also. I am sure it will be possible for us in future also to contribute a lot in an area which needs addressing. I appreciate the literature brought out by your organisation. I would like to become a member of ARNIZE.

Jalshri Jethwany, Professor, Indian Institute of Mass Communication
Aruna Asaf Ali Marg, JNU New Campus, New Delhi 110 067, India
20 May 1999
I take pleasure in acknowledging a copy of the ZOO ED BOOK, Part I, a compendium of ideas that can be explored. The instant browse of the articles and illustrations in the book makes one visualize the various concepts on which one can concentrate for familiarizing the people with zoo education in India. The book has a fund of information and may help in perceiving more ideas for betterment of zoo education.

P. Prakash, Deputy Secretary
University Grants Commission
South Campus, Delhi University
Benito Juarez Marg, New Delhi

17 August 1999
Education, interpretation and its techniques have put tremendous challenges on every wildlife professional, for the betterment of animal welfare, wildlife habitat, their environment and for in situ and ex situ conservation. ZOO has always been instrumental in moulding and guiding the zoo community for the welfare of animal and show practical and scientific approaches of education and interpretation in zoo and now ARNIZE has intensified these efforts. The ZOO ED BOOK is a yeanman’s attempt in retrieving and collecting data, information and techniques on education and interpretation. This book is of excellent educational value and is packed with information for enhancing the educational potential of a zoo. It is a very comprehensive presentation, each chapter well balanced and the materials updated and with added information in implementation tricks and techniques. This unique compilation will be an invaluable guide for the wildlife educationist, conservationist, scientist and academician in the field of zoo education. Congratulations for this unique compilation and good wishes for future plans.

Dr. M.A. Salani, Asst. Director
Jawaharlal Nehru Biological Park, Bokoro

16 June 1999
Thanks for sending me a copy of the ZOO ED BOOK, Part I. Now I am reading carefully. I think it is very important base for my zoo preparing education. As you know my zoo is very new, only four years, and anyway my staff doesn’t have sufficient experience on such kind of works. They will be learning more from them to do education to visitors.

Nhek Ratanapich, Director
Tannao Zoological Gardens

7 July 1999

FREE Sources of Animal Images

For an extensive collection of animal images try the BioInfor Animal Pictures Archives at http://bioinfor.kordc.re.kr/animal/. They’ve got an ever-increasing number of images available (now 16,000) and the database is searchable by animal name. The images are intended for personal or educational (not commercial) use.

Also check BIODIDAC at the University of Ottawa at http://bioldac.bio.uottawa.ca/. BIODIDAC is a back of digital images for teaching biology and has color photographs; black-and-white, color, and annotated diagrams; and video clips. Images are free for non-commercial use after you fill out a simple registration form on the Web site and you must cite BIODIDAC as the source.

Kate Broniowsk<br> <br>AZA Resource Center Curator, American Zoo and Aquarium Association
Education List Serve < education@aza.org>
In 1997 the countries of South East Asia were hit by an economic crisis. It was clear that not all members would be able to attend the annual SEAZA meeting which was to be held in Saigon, Vietnam. The Executive Board of SEAZA then decided to hold a Strategic Planning workshop in Bangkok, Thailand to develop future strategies for SEAZA. The workshop was attended by 21 delegates from 8 countries who formulated a policy document called SEAZA Future 2005. The Education and Interpretation Portion of the document is reprinted below.

Education and Conservation Interpretation
To provide guests to our zoos with comprehensive and accurate information on the need for environmental conservation and how they can help, through the use of a variety of appropriate media such as printed material, graphics, audio-visual aids and live presentations. This will be achieved by developing SEAZA based conservation messages and South East Asian regional zoo educational programmes to support them.

SEAZA Based Conservation Messages
Develop environmental and biodiversity messages and graphic templates that can be translated into relevant languages:
- We are all part of one large environmental system; if one part is hurt, all parts will suffer
- Precious resource worth saving
- Finite resource needing wise management
- Negative effects of human impact
- Promote flagship species, their biology and conservation issues.

Special Days to heighten public awareness
To create publicity events to promote environmental conservation and animal welfare on relevant days of the year:
- National Day
- United Nations Day
- World Environment Day
- Earth Day
- World Animal Day

Visitors can make a difference
To solicit support for causes, donations and campaigns from zoo visitors who are the existing core support group:
- Donate to conservation foundations
- Support conservation research and projects
- Reduce, Reuse, and Recycle
- Boycott buying endangered animal and their parts
- Sponsor animals and/or exhibits in zoos

Mindanao Initiative on Wildlife Education: Environmental Studies in the Philippine Context

By Angelito A. Cerenzo

Introduction
Developing a conservation ethic among young Filipinos is of paramount concern of the Philippine Eagle Foundation. To meet this goal, we consulted and worked with teachers to develop and pre-test materials to enable them to teach wildlife education effectively in the classrooms. A total of 264 teachers from 5 regions of Mindanao involved with the integration of wildlife modules into their schools’ curriculum since it was implemented in 1996. Of this, about 17,640 secondary level students have been recipient of this study and have utilized the workbook provided to them.

The Mindanao Initiative on Wildlife Education which introduces wildlife study to the formal educational system of the secondary level has provided an opportunity for both teachers and students to undergo an exercise that stresses cognizance of the importance of wildlife conservation. This initiative will contribute to reform the schools’ curriculum and ensure the development of a strong conservation ethic among Filipinos, particularly the young. The project responds to teachers' expressed needs for country-specific educational material on the environment and its endangered flora and fauna and takes advantage of the opportunity presented by the recent naming of the Philippine eagle as the national bird of the Philippines (Presidential Proclamation no. 615 signed 04 July 1995). This program involved series of seminars and faculty development workshops on wildlife, habitats, problems/issues on the environment as well as solutions into science education in the classrooms using the original education workbook material developed by the Conservation Education Program unit of the Philippine Eagle Foundation. This workbook contains basic ecological principles/concepts and up-to-date issues and facts on the Philippine environmental crisis using the Philippine eagle as its focal point. It has 16 chapters of interdisciplinary lessons which are integrated into various subjects including math, science and social studies. Recently, this initiative was strengthened with an endorsement from the Central Office of the Bureau of Secondary Schools directing regional offices of the Department of Education, Culture and Sports to actively participate in the program. Hence, the project is anticipated to work in a much broader scale to influence public perception on wildlife conservation and management of their environments.

Discussion and results:
The Mindanao Initiative on Wildlife Education is a significant step in pursuit of conservation goals in the country. The Philippine school textbook still talk about the country as a "Land of verdant forest and abundant natural resources" at a time when these are rapidly diminishing if not already destroyed. The availability of an alternative education material on wildlife amplifies motivation among the teachers to participate in the conservation effort as can be seen in a wide array of environment-related activities they have conducted. On its first year of implementation in 1995, the project was participated by 65 teachers from 37 secondary schools coming from the cross-section of private and public schools representing 47% of the total number of schools in Davao City. The project directly benefited 3,400 students. The indirect beneficiaries were the incoming students who then used the workbook. Because of the initial success of this teachers’ training workshop, the project was replicated in other parts of Mindanao region and is participated with 199 teachers from 144 secondary schools of which about 14,240 students have been directly involved with the program.

What we have introduced to the teachers was a partnership. The workbook material serves as a complement to the institutionalized textbooks used by the Philippine educational system, and the teacher-participants being the makers of consciousness within the educational system serve as our conduits towards the development of conservation values. As project implementers, we have to maintain this symbiotic partnership which is essential in sustaining interest in future environmental undertakings.

Several impediments to its full implementation were met head-on. The Philippine Eagle Foundation was very clear in defining the parameters of its intervention and it can only provide services to a certain extent. Problems expressed by the teachers are immense enough, like limitations on technology, pressures brought about by the school policies on activities and curriculum. Because of this, we requested the support of the Department of Education, Culture and Sports who then issued a directive to local schools to actively involve with the project and incorporate the wildlife modules into their classrooms curricula. This framework of development will empower the teachers in the long term.

Conclusion
The teachers’ acceptance to continue the challenge of inculcating conservation values among their students is an indication of their commitment to support conservation initiatives like ours. Toward this end, the teacher-participants underwent a diagnostic process of drawing out learning from the field testing of the workbook material. In a sense, the methodology of the training was participatory in all levels and it provided both the PEF and the teachers the venue of gauging the efficacy of the workbook, the extent of its integration in the curriculum, the levels of innovation of teaching and its impact to the learners. Furthermore, the students who had access to the workbook and other supplementary materials being distributed by the PEF had the rare opportunity of being taught and equipped with essential knowledge on current issues associated with the environment. While the young students might not living in the jungle, it is essential that they were able to understand the role they play in protecting this ecosystem and the need to conserve our biological resources. The teachers who are our conduit in defining the students’ place in nature and the role that people play, this initiative provides motivation among the students to view wildlife resources as an essential part of everyone’s life. By taking this approach we believe that the full scope of biological resources conservation will be appreciated both in the short term and in the long term.

* Program Manager for Conservation Education, Philippine Eagle Center, Malagos, Baguio District, Calinan, Davao City, 8000
Who drives ARNIZE?

The organisation that currently networks ARNIZE is the Zoo Outreach Organisation or Z.O.O. ZOO is a Positive, Constructive, Practical, Scientific, Sensible and Sensitive Conservation, Education, Research and Animal Welfare Society in India.

Z.O.O. is a communications service to fill the gaps in information and to provide a link between different agencies and institutions that have comparable and compatible interests with Indian zoos, e.g., wildlife agencies, conservation and welfare NGO's, universities, educational institutions. It is like a "Friends of the Zoo" for Indian Zoos. Z.O.O. supplies zoos with up-to-date technical materials which are not so easy to obtain in India due to foreign currency inequities and import obstacles.

ZOO does many things but one of its major activities is to promote zoo education and development, produce educational materials for zoos with low budgets and guide zoos with better facilities to direct them towards educating more people by outreach activities.

ZOO is the organisation promoting ARNIZE at this time because the Asian Regional Representative for I.Z.E. is Sally Walker, the Founder and Secretary of ARNIZE. In the year 2000, new Regional Representatives will be elected and another IZE member and institution will take over this job.

Current members should be thinking about this as they might want to stand for election in 2000.

To contact ARNIZE write to

ARNIZE
C/o Zoo Outreach Organisation
Box 1693, Peelamedu
Coimbatore, 641 004 T.N. India

Phone: 91 422 563 159
Fax: 91 422 563 269
Email: zooreach@vsnl.com

Websites:
ZOO - http://www.geocities.com/rainforest/vines/6883
ARNIZE - http://members.tripod.com/

~ Sally Walker

Archana Verma
C.B.S.G., India
Zoo Education Special Interest Group

Another driver for ARNIZE is the C.B.S.G., India Zoo Education Special Interest Group (SIG). C.B.S.G., India (which is evolving now into C.B.S.G., South Asia) is a regional network of the Conservation Breeding Specialist Group just like ARNIZE is a regional network of the International Association of Zoo Educators (IZE). C.B.S.G. is normally considered more a resource for zoo directors, curators, field biologists, etc. but C.B.S.G., its tool, processes and products are a great source of information for the Zoo Ed Department. Ask your Director for reports of C.B.S.G., PHVAs, CAMFs, Zoo Master Planning Exercises, etc.

Who sponsors ARNIZE?

The Columbus Zoo Conservation Fund has kindly given a grant to cover the initiation of ARNIZE, initial correspondence for sponsorship, fundraising for future projects, the ARNIZE Newsletter and duplication and circulation of one issue the IZE Newsletter.

Columbus Zoo sponsors practical field conservation in tropical countries all over the world as well endangered species research in other countries, with a special interest in education. Some of the education projects sponsored include Adopt-a-School and Teacher Training in Peru; Training for teachers in Madagascar; School supplies for a school at Laoxiacheng, China; development of a poster for the buffer zone of Notla-Mulkey National Park, Mexican Wolf, Coral Reef, Primate end sea turtle teaching "suitcases" and educational materials for Budongo Forest.

The ARNIZE Networking Project is the only project addressed specifically to zoos in countries of the developing world.

Thanks to you, Columbus Zoo.