



2008
*Annual Report of
Taipei Zoo*



Taipei Zoo



■ Words from the Director.....	3
■ Overview.....	5
■ Animal Conservation and Research	7
Animal Management	
International Cooperation and Exchange	
Research and Development Projects	
■ Environmental Education and Promotion.....	19
Diverse Collection of Animals and Eco Exhibits	
Establishment of Environmental Education Area	
Educational Promotion Activities	
Publications and News	
■ Visitor Services and Recreation.....	25
Total number of visitors and statistics on admission tickets	
Regular Services	
Creative Recreation Experience	
■ Financial Profile.....	27
■ Major Events.....	29
■ Statistics Data.....	33

Words From the Director

|| Meeting with Friends, Progressing in Wildlife Conservation

It's already been a year and half since I arrived at the Taipei Zoo. As a man who is always passionate about ecology and conservation, but never had a chance to take that passion further, when Taipei Mayor Lung-Bin Hau assigned me to tasks promoting tourism for the south side of Taipei City, I was delighted with the opportunity. The more I knew, the more I fell for the Zoo. Taipei Zoo is the foremost leader in eco-conservation researches in Taiwan. I was moved by the dedications targeted at animal welfare, health, and habitat preservations across all divisions including the Animal Division and the Education Center. The Zoo's core value – respect for life, love for nature, was the base for extensive researches and the drive for species and ex situ conservations. Excellent progress made by our entomologists and botanists on insects and butterflies, the latest research direction. And I was impressed by how well the Zoo did on marketing and promotion, too. However as a more senior-hand in events and marketing, I felt a little fresh new creative would generate better effects, a fact validated by the recent “sand drawing Noah's Ark”, a song clip together with Chuang Ming-ta's sand art that prompted hundreds of thousands of hits on YOUTUBE. This is a point that goes to show good creative marketing is conducive to the promotion of conservation. I look forward to work closely with all of you about the course of direction for the future, and to map out our outlook together.

I was particularly delighted that our collective efforts last year (2008) moved the Council of Agriculture of the Executive Yuan to pass the assessment with regards to the Giant Pandas coming to Taiwan. The local governments of Taichung, Kaohsiung, Hsinchu and Hualien had originally competed to have the Pandas for their constituents, but after rounds of environmental screenings the Taipei Zoo and Leofoo Village Theme Park were qualified as finalists. After huge sums of efforts and well-thought out preparations from the Panda House to



園長交接(左至右：陳寶忠前園長、吳清基局長、葉傑生兼代園長)

medication ability to educational and research plan by our staff members, we were ultimately declared as the host to the Pandas in August 2008. With assistances from the Straits Exchange Foundation and the Mainland Affairs Council we actively negotiated with China subsequently.

Tuan Tuan and Yuan Yuan arrived on December 23, via EVA Airways, and began the series of conservation education activities themed “Meeting with New Friends, Progressing in Wildlife Conservation”. The Pandas' arrival was a huge event, both on national as well as on international levels.

The Giant Panda is listed on Appendix I of CITES as an endangered species. With their arrival, Tuan Tuan and Yuan Yuan symbolized a glorious chapter in the history of conservation for Taiwan, and represented a platform connecting us to the global Giant Panda experts built upon our past successes. This multinational cooperation was no doubt a victory in diplomacy; our affiliations with other nations allowed everyone to see the efforts and achievements Taiwan has made on conversation, and advanced Taiwan's position on the world stage to the center arena. This year, good news from many animals including the Formosan Black Bear and Burmese Star Tortoise had been reported. Not only did we sign cooperation plans with conservation organizations worldwide, we also held international conservation seminars too. All of the aforementioned were just some fruits borne to the dedicated efforts of our staff members. Now, with the publication of the Taipei Zoo Annual Report, the extraordinary outcomes and results achieved in areas of conservation, feeding management, animal training, animal welfare, educational promotion and marketing, are laid open to share with everyone. Hopefully readers will have better understandings about the importance of conservation, and will join us in our fight. With friends putting efforts together, progress on wildlife conservation will definitely happen.

Overview



「歡迎大貓熊團團、圓圓」入園儀式
(左至右：金仕謙研究員、洪文棟理事長、葉傑生兼代團長)



葉團長至雅安接團團圓圓(左至右：黃治、葉傑生、瞿春茂、游雪音)

General Status

Established 94 years ago, the Taipei Zoo was relocated to the current Wenshan District (Muzha) site in October 1986. The new Zoo boasts four major functions: education, research, conservation and recreation. Presently the Zoo covers a total area of 165 hectares, and is regarded one of the finest metro-type zoos around the world. In addition to the original four divisions and six offices, the “Engineering Team” (established in January 2005) and the “Conservation Research Center” (established on December 15, 2006) were added over the last three years to meet new business developmental challenges. Currently there are a total of 322 personnel, including 73 staff members, 205 workers, 12 contract employees, and 32 security guards.

Current Status

Nearly 100 hectares have been developed and utilized by the Zoo presently, with the remaining areas preserved as natural secondary forests. Aside from the original six Houses (Educational Center, Nocturnal Animal House, Penguin House, Koala House, Amphibian and Reptile House, and Insectarium) and 8 Areas (Formosan Animal Area, Children’s Zoo, Asian Tropical Rainforest Area, Desert Animal Area, Australian Animal Area, African Animal Area, Temperate Zone Animal Area, and Bird World), plus a special exhibition house that was completed at the end of 2008 has been dedicated exclusively for the conservation and exhibition of Giant Pandas Tuan Tuan and Yuan Yuan.

The number of visitors to the Zoo in 2008 was 3.28 million, the highest amongst all of Taiwan’s Recreational resorts. The Zoo currently houses 416 animal species numbering 2,770 (excluding insects).



兩指樹獼

Animal Conservation and Research

Animal Management

1. Animal Exhibition and Breeding

The Taipei Zoo centers on the exhibition of vertebrate animals, roughly 416 species represented, totaling 2,770 in number. The number of animals bred under the Animals Breeding Program was 139 of 47 species in 2008.

Exhibition Focuses of the Year

On December 23, 2008, in the format of an animal exchange, we introduced Tuan Tuan and Yuan Yuan from the Bifeng Gorge Base of China Panda Protection and Research Center. It was a highly watched and much anticipated event worldwide. The introduction of the Giant Pandas and the opening of their exhibit not only turned a new page on the real exchanges of protected animals on both sides of the Taiwan Straits, and created a new marketing approach for the Zoo in the events of promoting conservation, it also afforded the Zoo to be more active and apply forward-thinking thoughts on areas including feeding management, medical treatment and care, conservation researches and educational promotions, as well as to further build-up our professionalism and know-how.

Animal Breeding Results

This year successful breeding was seen in 139 animals of 46 species: Focal Species – the Endangered Apes, White-handed Gibbons, Ruffed Lemurs, Common Brown Lemurs, and Ring-tailed Lemurs. Primates – Formosan Rock Monkeys, Squirrel Monkeys, Patas Monkeys, and Crab-eating Macaques. Other Mammals – African Lions, Giraffes, Addaxs, Common Elands, Formosan Serows, Formosan Sika Deer, Bongos, Chapmans Zebras, White-bellied Hedgehogs, Eastern Gray kangaroos, and Sugar Gliders. Birds – Silver Pheasants, Black Swans, African



環尾狐猴

Penguins, Sacred Ibis, Collard Scops Owls, Greater Flamingos and Peafowls. The mixed exhibits successfully effectuated the three species of lemurs to breed and raise more than ten young.

There were advancements and good results achieved on the breeding of native species as well. The male Formosan Black Bear sent to the Kaohsiung Shou Shan Zoo in July 2007 for pair breeding, successfully produced one cub (female) in March this year; the Formosan Black Bear conservation breeding program on going for more than two years with Mr. Teng-Cheng Li of Pingtung, a local farmer in Changzhi Township, Pingtung County, also produced one cub as well, male this time, on December 30 of this year. The above successes were proof that the Zoo has reached deep into the private sector, and presented the general public tangible opportunities to participate in the conservation works of protecting indigenous wild animals. The sole member belongs to the wild cattle family in Taipei Zoo captivity, the Formosan Serow, added eight newborns this year, and pushed their numbers to above thirty. The steadiness of this species has also become the finest material for conservation researches and educational purposes.

Statistics of Animals

Category \ Time	Mammals		Birds		Reptiles		Amphibians		Fish		Total	
	Species	Individuals	Species	Individuals	Species	Individuals	Species	Individuals	Species	Individuals	Species	Individuals
Beginning of Year	123	975	137	923	130	673	26	161	14	177	430	2909
End of Year	119	928	133	899	127	624	24	154	13	165	416	2770

2. Animal Health Care and Epidemic Prevention

In addition to daily medical care and emergency situations, health examinations for 381 animals were completed. The zoo also conducted tuberculosis tests, microchip implantations and vaccination injections. Other tests performed included 660 blood analysis tests, 2,252 feces and urine tests, and 1,021 X-ray exams for a total of 324 animals.

A total of 33 animals were quarantined in 2008. These animals came from day-to-day confiscation of illegal possession of protected animals, those given to the Zoo by the general public, or from inter-zoo exchanges. Rescue services performed on 94 animals. Assurances were also given to local governments taking-in Pangolins, Formosan Serows, Formosan Ferret-Badgers, and Formosan Blue Magpies.

3. Care for Protected Wild Animals

The Zoo's Wildlife Rescue Center is dedicated to take-in wild animals under conservation confiscated by conservation authorities due to smuggling, illegal hunting, selling and displaying. In 2008, we helped investigated 17 people, assisted with the handling of 44 animals of 18 species seized from the investigations and took them in, we also took-in 883 animals of 101 species on requests from various county and city governments. We are committed to continue assisting with the handling of wild animal rescue commissioned by county and municipal government agencies, and will keep on taking-in and adopting the many animals, which includes bears, big cats, birds (parrots), primates, amphibians and reptiles, amounting to 862 animals representing 101 species, entrusted by authorities over the years. We also conducted professional animal rescue and adoption related seminars and educational activities, and received total 1,040 people from 14 groups.

4. Introduction and Exchange of Animals

For purposes of renewing animal bloodlines and to enrich educational exhibits, the Taipei Zoo has engaged exchanges of animals, breeding programs, and gift-giving with other foreign and domestic zoos, and private individual breeders. New individuals introduced: Formosan Wild Boar, Two Humped Camel, Two-Toed Sloth, Giraffe, Leopard Cat, Chinese Ferret-Badger and Canadian Beaver. New species introduced: Hog-nosed Coon and Northern Night Monkey. New birds introduced:



丹丹野放合作記者會



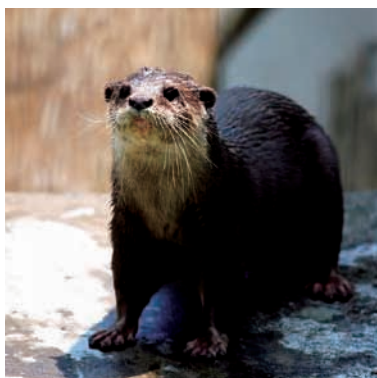
長頸鹿換入搬遷



大貓熊引進審查

2 individuals of 1 species. New mammals introduced: 18 animals representing 11 species. Major results are as follows:

- ◎Exchange program with Shin Kong Chao Feng Ranch & Resort: Taipei Zoo used two pairs of Zebras in exchange for one pair of Hog-nosed Coons, one male Raccoon, and two female Mandarin Cucks.
- ◎Exchange program with Hsinchu Zoo: Taipei Zoo presented Hsinchu Zoo with one male Common Eland (neutered), five Greater Flamingos, three Spectacled Caimans, four Emus, one male Dark-handed Gibbon, and three male Common Brown Lemurs as gifts. We received in return one male Leopard Cat and one Chinese Ferret-badger.
- ◎Exchange program with Zoo Frankfurt: exchanged-in three Chinese Ferret-badgers (the Taipei Zoo exchanged-out two Fat-tailed Dwarf Lemurs in December of 2006).



小爪水獭「皮皮」



夜猴



長鼻浣熊

◎Exchange program with Wan-Pi World: presented with two Leopard Geckos, two Tokay Geckos, two Madagascar Day Geckos, two Common Wonder Geckos, four Double-crested Basilisks and one male Giraffe in exchange for one female Giraffe, and one female Two Humped Camel.

◎Exchange program with China: Taipei Zoo has decided to use one pair of Formosan Sika Deer and one pair of Formosan Serows (delivery date under negotiation) to exchange for Giant Pandas Tuan Tuan (male) and Yuan Yuan (female) with the China Panda Protection and Research Center. Both animals arrived Taiwan on December 23, and shall enter the Xinguang Special Exhibit House to begin quarantine immediately.

◎Gifts to Zhishan Cultural and Ecological Garden: Taipei Zoo presented Zhishan with ten Asian Yellow Pond Turtles, ten Yellow-margined Box Turtles, and 10 Chinese Striped-neck Turtles as gifts.

◎Gift to Kaohsiung Shou Shan Zoo: Taipei Zoo presented Shou Shan with one male Scimitar Oryx as gift.

◎Gifts to National Pingtung University of Science and Technology Innovation and Practical Training Center: Taipei Zoo presented the University a total of 27 animals representing 3 species as gifts – four male and four female Formosan Wild Boars (hybrids), eight male (four neutered) and eight female Formosan Muntjacs, and one male and three female Formosan Sika Deer.

◎Annual animal purchases: Taipei Zoo acquired two female Two-toed Sloths from Feb ~ Mar; in March acquired one female Formosan Wild Boar from Nantou; and acquired one pair of Beavers from Canada in October, for purposes of enriching the animals on exhibition.

◎Collaboration project with Huanlien Ocean Park for breeding and exhibition: one male Oriental

Small-clawed Otter sent in March for the purpose of conservation breeding.

5. Construction and Renovation

● Repair and Maintenance of Animal Enclosures

The Zoo completed maintenances and repairs for a total 11 exhibition and display venues including exhibits for Formosan serows, Kinmen horses, and primates inside the Asian Rainforest Area. Those renovations were done for purposes of expanding the living space of animals, promoting animal well-being and improving reproductive rate, so as to strengthen animal exhibition environments, and enhancing the quality of displays.

● Planning and Renovation of Exhibits

To improve the quality of exhibit facilities and to provide more quality services, multiple planning and designs as well as construction projects began during the year on many exhibits and display areas: “Asian Tropical Rainforest Area construction project”, “renovation project of the gorilla exhibit”, “renovation project of the hippopotamus exhibit”, “planning project for biodiversity at the Nocturnal Animals Exploration Area”, “renovation project for the Cervidae exhibit at the Formosan Animal Area”, “renovation projects at Bird World” and the “renovation of wire netting at aquatic bird pond”. Constructions on the “Special Exhibit House” donated by Xinguang Group were finished and the exhibit house came into use.

《Special Exhibit House》

The construction of this project, which began in December 2003, was completed in June 2008, and the Zoo received it in September. Subsequently, the Zoo performed constructions to further strengthen the exhibit areas, improved the peripheral landscaping and education

touring facilities, and readied in-situ quarantine for Giant Pandas Tuan Tuan and Yuan Yuan upon their arrival.

The building design of this Exhibit House was cored on bamboos. The exhibit area on the 1st floor was centered on the conservation of endangered species. It offered diverse activity space, comfortable environment, and a secure area designated to food storage, thus ensuring the animals comfort and health. On the 2nd floor were visitor services and educational display area. The 3rd floor was outfitted with international conference hall and seminar rooms, intended as an exclusive exchange/activity facility for conservation and researches of wild animals.

6.Cooperation with Academia to Promote Animal Education

Taipei Zoo continues to work closely with the likes of Department of Veterinary Medicine of the National Taiwan University in animal clinical technique exchanges, maintaining a good cooperative relationship with the academia to construct a complete database of the cause of death of the zoo animals for interns and students to use for teaching and research purposes. In 2008, a total of 76 internship opportunities were provided to 814 NTU students for training in pathology.

7.Organizing Professional Seminars

»» In June, the Taiwan Aquarium and Zoological Park Association co-organized with the Taipei Zoo for the “A New Outlook on Animal Welfare – An Animal Management and Medical Treatment Training Course”, and invited Ocean Park Hong Kong, Toronto Zoo, Saint Louis Zoo, and former animal trainers from the Singapore Zoo to speak on the theories and practicalities of animal training. Live demonstrations and practices were conducted during the course as well. The intents of this training were to strengthen the professional capabilities of all the attendees, and to enhance the well-being of animals in captivity. A total of 150 people attended the course.

»» In September the Council of Agriculture commissioned the Taipei Zoo to organized two sessions of “Capture and Immobilization of Animals Seminar”, and trained a total of 59 attendees representing agencies across the nation

»» From October 31 to November 2, the “Conservation Breeding of Endangered Carnivores Seminar” was held inside the Zoo’s Lecture Hall, and was attended by a total of 88 people. To introduce the flagship species – the Giant Pandas, and to spotlight the Zoo’s strong aspirations in promoting conservation of wild animals, three world-class specialists involved in the building of conservation and core breeding techniques of the Giant Pandas were invited. They were Dr. Jon Ballot of National Zoo in Washington DC, Dr. Suzan Murray, the National Zoo chief veterinarian and conservation breeding specialist Kathy Holzer. They came to Taipei Zoo and spoke on population management and conservation breeding techniques of endangered carnivores. The three guests also engaged in actual experience and key technology exchanges with local professionals of like-fields, in hopes of consolidating the related domestic agencies, so thus could gave birth to conservation breeding program on the endangered carnivores indigenous to Taiwan.

»» In November the Taiwan Cetacean Society held a seminar on the rescue of injured whales and dolphins at the Taipei Zoo, and Dr. Chih-Hua Chang, the supervisor of our Veterinarian Division, spoke about the issues one must pay special attention to when handling wild animals.



白頸狐猴



赴澳洲參加世界動物園暨水族館協會(WAZA)年會-團長與澳洲阿德列市市長Mr.Michael Harbison 伉儷合影

8.Promotion of Animal Adoption Project

The Animal Adoption was a project first launched in February of 2003, intended on providing the general public with opportunities to get closer to wild animals, get information about conservation, and to move the people into taking parts in conservative tasks. In addition, this project also aimed to band private forces to dedicate more powers in protecting animals, so could effectively help the Taipei Zoo with our drive to enhance conservation education and animal welfare.

The accumulated individual adopters totaled 1,161 for the year (702 animal nannies and 459 animal treasurers) and there were 18 corporate adopters. Outside cooperation through this Project successfully bred 2 Formosan black bears in 2008, one born in February and the other in December.

International Cooperation and Exchange

In light of the introduction of the Giant Pandas to the Taipei Zoo this year, the cooperation and exchange issues in this fiscal year were more directed on the practical training of hands-on techniques relative to the caring and feeding of the Giant Pandas, as well as to enhance the Zoo's professionalism promoting in the conservation of wild animals. We have dispatched staffs numerous times to Hong Kong and China for professional training on the care management and medical treatments of the Giant Pandas. In addition to the aforementioned sending staff overseas for training, we also sponsored and organized related seminars and training ourselves, invited foreign experts and specialists over to our Zoo for teachings

and exchanges: "Conservation Breeding of Endangered Carnivores Seminar" and "A New Outlook on Animal Welfare – An Animal Management and Medical Treatment Training Course".

● Participating in International Conferences

In terms of international affairs exchanges, we continued to participate in zoo-related organizations, regionally and globally. We kept up exchanges with famous zoos and organizations worldwide, sustained smooth channels on animal exchanges and research cooperation, personnel training and technical exchanges too. We also co-launched conservation efforts of regional animals, took part in specific professional and technical seminars, and built up our international status based on our professionalism too. In 2008, 102 zoo staffs attended 13 international conferences.

● Observation Visits and Exchanges

The release of "Dan Dan" the Red-crowned Crane back to the wild and the introduction of the Giant Pandas were the focal operations this year. To ensure animal safety and welfare, we strived to enhance our staff members their professional knowledge and practical experiences, by ways of learning and exchange sharing. We dispatched staffs to Seoul Korea twice in 2008 to negotiate and to address matters related to Dan Dan's release. We sent staffs 5 times to Ocean Park Hong Kong and Bifeng Gorge Base of China Panda Protection and Research Center to learn and discourse about feeding management and medical treatments for Giant Pandas, to ensure there won't be any problems pertinent to the feeding and caring of the Pandas after they are introduced. In 2008, 183 zoo staffs partook in 15 observation visits and exchanges.

● Others

we invited Professor Kim Deokhwan of Chungnam National University in Korea to the Taipei Zoo to observe the ear infection on Asian elephant Yiu-Ji, and the needle placement site for the acupuncture treatment performed on the animal. We also assisted the United States National Zoo with the abstract translation into Chinese of its journal on wild animal medicine JZWM, Issue 38.

Research and Development Projects

Research projects for the fiscal year 2008 included 1 City Government annual project, 8 Central Government commissioned projects, and 7 staff research projects. For the fiscal year 2007, 16 out of the 17 City Government research projects and staff research projects were awarded by the Taipei City Government, including 2 first prizes, 5 second prizes and 9 third prizes.

List of Taipei City Government Research Projects for Fiscal Year 2008

No.	Project Title	Executed By
1	Research on foraging and habitat choice of forest bats in Taipei Zoo (2 of 2)	Conservation Research Center

List of Staff Research Projects for Fiscal Year 2008

No.	Project Title	Researcher
1	Case report on the successful treatment of <i>Otus elegans botelensis</i> , using a combination of three different fixation modes on the humeral shaft spiral fracture, and the animal's successful release back to the wild.	Isis P.J Wang, Shih-Chien Chin, Chen-Yeh Lien, Lih-Sng Yeh
2	Research on the performance outcome on the environmental education in Insect Valley, Taipei Zoo	Chun-Lan Lin, I-Hsin Wu
3	The effects of feeding enrichment have on the daily behaviors of <i>Canis lupus</i> in captivity.	Hsin-I Hsieh, Hsiao-Wei Kuo, Chih-Chin Shih, Ming Hsung Chang,
4	Behavior enrichment project for the pangolins in the Formosan Animal Area	Shi-Jia Zheng, Hsiang Ling Chen
5	How to lose a habitat in 5 years: trial and error in the conservation of the Farmland green tree frog <i>Rhacophorus arvalis</i> in Taiwan	Joann C. W. Chang, Hsin-Chieh Tang, Szu-Lung Chen, Pao-Chung Chen
6	Simultaneous detection and differentiation of Newcastle disease and avian influenza viruses using oligonucleotide microarrays	Lih-Chiann Wang, Chu-Hsiang Pan, Lucia Liu Severinghaus, Lu-Yuan Liu, Chi-Tsong Chen, Chang-En Pu, Dean Huang, Jihn-Tsair Lir, Shih-Chien Chin, Ming-Chu Cheng, Shu-Hwae Lee, Ching-Ho Wang
7	Sex identification of owls (Family Strigidae) using oligonucleotide microarrays	Lih-Chiann Wang, Lucia Liu Severinghaus, Chi-Tsong Chen, Lu-Yuan Liu, Chu-Hsiang Pan, Dean Huang, Hsiao Yuan Lee, Jihn-Tsair Lir, Shih-Chien Chin, Chang-En Pu, Ching-Ho Wang

List of Central Government Commissioned (Funded) Projects for Fiscal Year 2008

No.	Subsidized Project Title	Funded By	Executed By
1	The business plan for protected wild animal rescue stations and adoption centers of 2008	Forest Bureau	Conservation Research Center, Veterinary Division
2	The establishment of wild animal product morphology identification laboratory in Northern Taiwan (12)	Forest Bureau	Conservation Research Center
3	Production of wildlife animal safety operation videos and confiscated ivory preservation management	Forest Bureau	Shih-Chien Chin, Researcher
4	Research on the rapid diagnosis of Herpesvirus infection in tortoises by applying loop-mediated isothermal amplification assay	Forest Bureau	Veterinary Division
5	Use DNA profiling to identify the likely types of animal meat appearing on the local Taiwanese market Project (3)	Forest Bureau	Veterinary Division
6	City administration management plans for animal protection	Council of Agriculture	Education Division
7	"Energy and Environment" an information education plan about "Green Thinking, Actions to Reduce Carbon Emission", which is an educational promotional plan for the implementation of energy conservation lifestyle	National Science Council	Education Division
8	Living Science - incubating natural science exploration and scientific record-keeping techniques' education promotion project	National Science Council	Education Division

Environmental Education and Promotion

|| Diverse Collection of Animals and Eco Exhibits

● Year of the Rat - Rodentia Exhibit 2008

In the Year of the Rat, special collaborations were reached for the first time with the National Museum of Natural Science and the Endemic Species Research Institute of the Council of Agriculture of the Executive Yuan to jointly launch series of exhibits on this Chinese zodiac animal. "Legends of the Rat – Year of Rat Exhibit" was held at the National Museum of Natural Science, and "The Rat of Fortune – A Diverse Exhibit of Taiwan's Rats" was at the Endemic Species Research Institute.

In February, both the Zoo's Education Center and the Nocturnal Animal House launched concurrently the "Rats for Treasure: A Year of the Rat -- Rodentia Exhibits 2008". The exhibit themes at the Education Center included: Meet the Rodentia Family of the World", "How Rodents Adopt to Their Environments", "Impacts Rats Have on Ecology", "In Search of Rodent Habitats", "A Study on Taiwan's Rodentia Mammals", and "The Relationship Between Rodents and Man". There were also fun activities such as a rat's maze, clear hurdles, Yo-Yo rat race, and film clips too. The Nocturnal Animal House exhibited: "The Rodents Indigenous and Non-Indigenous to Taiwan", and Rodentia mammals who are not really "rats" but have the term "rat" in their Chinese names.

● Exhibition of Diverse Plants

In February to tie in with the Year of the Rat theme, a special "Money and Rat" exhibit was put forward. In December a themed display of "Animal Trails" was launched at the Formosan Animal Area. Also, in collaboration with exhibition of plant resources on the Zoo ground, 626 plant interpretation boards were updated adding 387 species, to help visitors explore varieties of plants in the Zoo.

Themed plant displays established in recent years still on exhibit are the "Fern Garden" inside the Formosan Animal Area, the Aquatic Botanical Garden sited on the Wizard of Oz, which was built utilizing the "gray water" recycled from animal use, and the "Tropical Rainforest Crop Area" directly opposite from the entrance to the

Tropical Rainforest Area. Furthermore, the Children's Zoo holds seasonal and Taiwan-featured crop activities such as transplant of rice seedlings, harvest, shattering and shelling, as well as green manure planting and other ties to perpetuate the Zoo's dynamic plant exhibitions and educational activities.

● Management of Ecological Environment of the Plants inside the Zoo

Aside from the regular management of the plants inside animal exhibit areas and visitor's facilities, attentions have also been dedicated to the protection of the vast under-developed as well as less-disturbed vegetation areas too. In November more efforts concentrated on the eradication of the invasive alien species mile-a-minute weed (*Mikania micrantha* Kunth.), an initiative that will be sustained in the future to protect the natural environment inside the Zoo.

|| Establishment of Environmental Education Area

● Water Conservation and Energy Saving Environmental Education Area

Taipei Zoo continued to champion water conservation and energy saving plans as well as education to the public. We formed teams such as the water conservation and energy saving task force to promote energy saving measures systemically throughout the Zoo. In terms of water conservation, the new rainwater catchment systems placed at the Insectarium and the Children's Zoo were able to store more than 800 tons of rainwater per month. The recycle/reuse water system outfitted to the courtyard fountain by the entrance supplied water to the rice paddy at the Children's Zoo, the lotus pond, the yellow water lily pond, and public toilets too, for a saving of roughly 8 tons of public water supply a day. The Zoo recycled more than 12,000 tons of reusable water each month for the use of landscape irrigation, aquatic plants and public restrooms, instead of public water supply.

Pertinent to the promotion of water conservation and energy saving education, guided tours to visit the Zoo's "water and energy saving facilities and rain/used water utilization areas" are on-going.



國小教學



溼地探索教師營



節能駐站解說

● Animal Excrements as Compost, Recycling for Reuse

The Zoo recycled excrements of large herbivores and produced 131.2 tons of compost for the whole year, for use on shrubs and trees and to improve the soil quality. This step has reduced the volume of chemical fertilizer used necessary.

The Zoo continued to outsource the garbage to contractors. There were a total of 159 recycling bins and composite plastic recycling bag units throughout, and as the Zoo strongly encouraged trash separation, a total of 46,000 kg of waste was recycled in 2008.

● Promoting No-Smoking Environmental Concept, to Create a “Smoke-Free Taipei Zoo”

Even before the Tobacco Hazards Prevention Act came into effect and banned smoking in all other public facilities, Taipei Zoo had spared no efforts promoting no-smoking in public areas by asking people not to smoke and increased the no-smoking signage, for a more premium environment and recreation quality all around.

In October 2008, smoking was no longer allowed at two of the three previously designated smoking areas inside the Zoo, (smoking was no longer permitted at front and back areas, and only the middle area was opened to smoking). Portable signage and boards were made, which students doing public services carried on weekends and holidays walking about championing the idea that Taipei Zoo is a smoke-free zoo to all visitors. Announcements broadcasted at random promoted the Zoo’s no-smoking measures too; and there were large smoking-is-prohibited posters created and posted at suitable locations throughout the Zoo. We are sprinting toward on becoming a smoke-free land of paradise fast.

|| Educational Promotion Activities

1. Enhancing and Promoting Zoo’s Regular Educational Visits

A total of 31,910 fourth grade students from 150 primary schools in Taipei City participated in the educational zoo visits. 252 persons attended the 11 parent-child learning camps. 381 groups totaling 26,409 people reserved guided tours. The Zoo also continued to carry out holiday stationary guides, scheduled keeper’s explanation services, and put out bilingual introduction boards.

2. Promoting Themed Educational Activities both Inside and Outside of the Zoo

Educational activities, themed exhibits and seminars were designed in conjunction with major holidays and specific themes. Moreover, subsequent to the “ICE ZOO-Love for Taipei Zoo” summer series held on 2006 and 2007, this year as tie-in to the Amphibian Ark “2008 Frog Year” theme, we launched a series titled “Animals’ Summer 2008 – the Kingdom of Ribbity Ribbity Croak”, which was intended to help visitors to learn about animals through interactive activities, so they could start building up awareness and began cherishing nature and protecting animals.

● The Most Useful Insect – Bees on Exhibit

The “Bees on Exhibit” had launched since July 12 at the Insectarium, detailed everything about the bees from their basic information to their unique characteristics as social insects. We emphasized the importance bees have on ecology, the development of bee-related industry, and threats posed by the recent sharp decline in the bee populations and the impact to human survival.



「有蝠同享」蝙蝠特展



Publications and News

Taipei Zoo continued to publish zoo magazines, annual reports and academic journals. We published “A Piggy Bank Full of Love”, “Learning List Meeting Giant Pandas” during the year, as well as “Green Island Encounters”

● Bat Sharing – An Exhibit of Bats

This four-month exhibit, sponsored by the National Science Council, and co-organized by the Taipei Zoo and the Tainan National University of the Arts, was intended to make scientific knowledge more lively, more animated, and more interesting to the general public, so that science may be deeply imbedded into our education and to enhance our nationals their awareness for science across-the-board.

This exhibit has a three-pronged theme: “the Structure and Sensory of Bats”, “Habitats and Bat Species”, and “Bats and Man, A Conservation of Bats”, which the public can follow to gain understanding of this mysterious creature. The contents on exhibit included: mechanical bats, bat ears, blind-mobility model (echolocation), and an aircraft replicated after Da Vinci’s manuscript, as well as debuting bleeding-sucking vampire bats that came all-the-way from the American Museum of Natural History in New York and Central/South Americas – skulls, specimens, the world’s first unprecedented photographs of vampire bats “running”, habitats and behaviors, and introductions about the valuable bat species occurring to Taiwan. The intent of this exhibit was to increase the public’s comprehension for bats through the contents on display, make them understand how important bats are for the ecosystem, the plight of this species and the survival risks. Let’s all be helpers in the conservation of bats.

The tied-in educational activities on weekends were aimed to further enrich visitors’ knowledge about bats through fun, interactive, hands-on game playing.

– witty and entertaining letters from animals living on the Green Island to a little boy name “Xiao Yang”, detailing their lifestyles and the risks they currently face. “A Piggy Bank Full of Love” contained 25 real stories, each a warm tale describing the love developed between man and animals through interactions, and the trust and mutual dependence, purported to remind readers about the importance of nature and how much we should treasure it. The “Learning List Meeting Giant Pandas”, a tie-in designed specially to the introduction of the flagship species – the Giant Pandas, aimed to give the public a better understanding about this species and about its habitat.

The Zoo put forward conservation and education messages via the media as a channel for promotion. For the year 2008 Taipei Zoo issued 143 press releases, strengthened web services and updated all the web contents in real time. The home page received 4,035,526 hits for the year. A new addition, the “Giant Panda in Taipei” website coincided with the arrival of the pandas, was opened on December 5. Its web contents included descriptions and conservation methods of this species, and related media coverage. This website also contained links to other Giant Panda websites availed by respective zoos worldwide, providing latest conservation efforts happening around the globe. The Taipei Zoo has listed the Giant Pandas as one of the action plans participating in animal conservation, and is calling for all Panda Lovers to join-in and get involve with the efforts of protecting the local indigenous wildlife under conservation too.

● Numbers of Press Releases for Years 2006~2008

Unit: piece of news

Year	Number of Press Releases	Number of Media Reports
2006	143	1,793
2007	130	1,345
2008	124	2,323

Visitor Services and Recreation



「歡迎大貓熊團團、圓圓」入園儀式(左：郝龍斌市長、右：趙學敏會長)



特展館參觀動線及抽票券系統彩排演練測試

Total number of visitors and statistics on admission tickets

The total number of visitors was 3,284,443, revenue from admission tickets was NT\$ 93,068,043.

Regular Services

- 1.Services provided by the Visitor's Center included broadcasting announcements (11,914 broadcasts), lost and found (722 items), visitor telephone queries (57,863 calls), community service opportunities for middle and high school students inside the Zoo (2,938 persons). Number of shuttle tickets sold (2,226,004 persons).
- 2.Efforts continued throughout the year improving shading for visitors as well as enhancing scenery. The total number of individual plants, flowers and ground cover plants in the Zoo was 48,417.
- 3.Improved restroom security surveillance and maintenance cleaning

There are 22 restroom facilities in the Taipei Zoo accommodating the high visitor's volume (208 toilets and 23 multi-functional toilets), each and every one clean and tidy thanked to the Zoo's dedicated maintenance crew, completely in contrast to the stereotype opinion that public toilets are filthy and smelly. The entire restroom facilities were rated excellent by the Department of Health of Taipei City, and won first prize in the recreational facilities group from Taipei City Government. The internal layout featured green

landscaping according to the theme of each exhibition, our very-own Animal Knowledge Stickers, and animal-related drawings to accentuate the Zoo's unique atmosphere. Day-to-day safety inspection and toilet maintenance were strengthened, so as the maintenance of signs.



特展館抽票券系統彩排演練測試

Creative Recreation Experience

1.Introduction of flagship conservation animal – the Giant Pandas

In August the Zoo's special project to introduce Giant Pandas Tuan Tuan and Yuan Yuan was approved. The related engineering and construction for the landscaping and educational planning of the Special Exhibit House was finished in October/November. The Giant Pandas arrived on December 23 and entered the Panda House and began quarantine. Maintaining the facility and animal welfare to ensure a better visiting experience, the Zoo mapped a course for visitors to see the Giant Pandas, and unveiled a ticketing system to control the number of visitors. 400 people are allowed at set time periods for 10 minutes (main hall and panda viewing inclusive), so queue length may be reduced, and they could learn about conservation in a more pleasant environment.

2. Building the South Side Eco-LOHAS Center of Taipei

In collaboration with Taipei City's "building a tourism and recreation region at the south side of Taipei City" urban development plan, the areas including Taipei Zoo, metro station, Maokong Gondola, Maokong, and Jingmei riverbank have been connected to form the south side green belt of recreation – "Eco-LOHAS Center". Our Zoo Mall is located at the heart of this pivotal location and attracts millions of visitors annually. With needs arising from this governmental development project, it was decided during the 1,496th city council meeting on October 14, 2008, to accelerate the leasing agreements with 135 tenants leasing spaces inside the Zoo Mall to terminate at the end of the year, for purposes of modifying spatial schematics and service functions, and to harmonize the place with the latest "Green Action" concept. The intent was to revamp the operating model to show educational features such as wild animal conservation, energy conservation and carbon emission reduction and eco-conservation, and to provide/promote responsive public travel services.

3. The Don't Drive, Walk Day at the Zoo

The Taipei Zoo, a long time participant of the World Environment Day, is deeply aware of the impact humans have on nature and the role we play educating social accountability internationally. We have reduced the number of shuttle train runs on Mondays since March 10th as means to conserve energy and cut down carbon



愛上貓空— 創意生活嘉年華

emission. Visitors are encouraged to walk around the Zoo instead on Mondays. Let's use real actions to love the Earth, and help with promoting environmental education.

● Important measures

News releases had been made to inform the general public that environmental measures have been implemented. Similarly announcements were posted on the Zoo website and related print articles published.

On Mondays, either a medium-size bus bearing the Taipei Zoo totem or a train engine will be parked on the courtyard inside the Zoo from 9:00 ~ 16:00. Visitors can take photographs for free. On that day the shuttle train will only run once every hour, at the top of each hour, and with priority services to seniors, the infirmed and disabled visitors.

The member staffs and visitors are encouraged to take public transports such as the metro or buses on Mondays (The Don't Drive, Walk Day) or even cycle, walk, or jog to the Zoo.

Financial Profile

|| 2008 Revenue

The budget of revenue was NT\$ 135,075,713; and the actual revenue was NT\$ 135,699,581.

|| 2008 Expenditure

The budget of expenditure was NT\$ 493,098,928; and the actual expenditure was NT\$ 478,655,241.

The operating expenditure was NT\$ 400,172,428; and the actual operating expenditure was NT\$ 394,010,532.

The capital expenditure budget was NT\$ 92,926,500; and the actual capital expenditure was NT\$ 84,644,709.

Major Events

Date	Event Description
01/12	Gorilla "Bao Bao" escaped from his enclosure located inside the African Animal Area via the exhibit's artificial mountain. The Zoo evacuated visitors immediately. The animal was tranquilized 20 minutes later, and the crisis was over. One visitor fell and was treated at a hospital nearby.
01/31	A press conference for the "Year of the Rat Exhibit" was held at the Council of Agriculture jointly by the Taipei Zoo, National Museum of Natural Science and the Endemic Species Research Institute.
02/07	Beginning from now to December 14 the "Rats for Treasure: A Year of the Rat -- Rodentia Exhibits 2008" was opened to the public at the Zoo's Education Center, and as well as in the Nocturnal Animal House too
02/10	Taipei Mayor Lung-bin Hau graced the Zoo and brought New Year's tidings to visitors along with a God of Fortune figurine, and joined-in for fun of the "Rats for Treasure" children's activity.
02/16	In cooperation with the Society of Wildlife and Nature and the Fengrong Community of Tainan, an exhibit themed on crickets was held at the Insectarium titled "Playing with Cricket Exhibition".
03/10	Starting today, the number of shuttle train runs is reduced on all Mondays. Visitors are encouraged to walk around the Zoo and demonstrate energy conservation through action.
03/25	Kadoorie Farm & Botanic Garden of Hong Kong visited the Taipei Zoo to discuss matters of cooperation about co-launching a rescue center in China together.
03/27	A press conference was held at the Administration Building on the subject of releasing Red-Crown Crane "Dan-Dan" back to the wild, a cooperative project with the Seoul Zoo of Korea.
03/27	A press conference titled "A Media Date with Mayor Hau – the Giant Pandas' Special Exhibit" was held at the empty lot in front of the Taipei Zoo's Xinguang Special Exhibit House
03/28~04/01	Taipei Zoo dispatched staff members to escort Red-crowned crane "Dan Dan" to Korea for wilderness survival training.
04/01	Zoo director Pao-Chung Chen retired today after 31 years of service (1977~2008).
04/02	Taipei City Counselor Jason Yeh, appointed as standing director of Taipei Zoo, reported to his new position today.
04/07	Opening hours at the Penguin House has been changed; it is now closed for cleaning on the second Monday of every month.
05/03	The opening of "Ho-Tai Butterfly Month" co-sponsored with Ho-Tai (Toyota) Motors, as well as the donation ceremony of Mobile Zoo. The "World's Butterfly Exhibit" from now to May 31 at the Insectarium, had on display butterfly specimens representative of each and every continents in the world.
05/21	The repair work happening at the courtyard inside the front entrance was completed and passed inspection. Starting May 21 the Education Center would resume charging NT\$ 20 admission fee per person.
05/29	Telephoned the China Research and Conservation Center for the Giant Panda to inquire about foreign aides and assistances needed after the major Sichuan earthquake.
06/02	The Taipei Zoo was relocated to Muzha from the original Yuanshan location in 1986. The container that transported Asian elephants Lin Wang and Ma Lan has been placed on exhibit at the exit of Asian Tropical Rainforest Area for the visiting public.
06/09	This year's "A Special Exhibit about the Rats Indigenous to Taiwan" on going at the Nocturnal Animal House has added a new species on display -- Taiwan bandicoot rat.
06/18	The Malayan Sun Bear born on August 16, 2007, "Missy Bear", has gained weight from less than 500 grams at birth to 32 kilograms under the attentive care of its keeper. And starting today she was moved to the Asian Tropical Rainforest Area to get adapted to the new environment, and gradually reintroduced to the Malayan Sun Bear community.
07/12	Evening hours has been extended on Sat and Sun starting now until August 24 to 9 pm. Deputy Mayor Ching-Ji Wu and Commissioner of Department of Education Ching-Shan Wu graced the event and joined-in on making "I love Frog Declaration". He unveiled the events for "Animals' Summer 2008 – the Kingdom of Ribbity Ribbity Croak".
07/12	The "Bees on Exhibit" at the Insectarium had contents including how-to-collect-honey, bee behaviors and eco-introductions, as well as exploring the reasons why bees have disappeared in large quantities of late. The exhibit is on-going until the end of December.
07/16 ~ 17	Held six sessions of "2008 Natural Ecological Environmental Education Teacher Training Camp" respectively at Taipei, Taichung, Tainan and Kaohsiung. This was a training camp targeting full-time and part-time teachers in our nation's 9-year education curriculum system, training them to pass-on the concept of conservation to students and parents, so thus may sustain the wetland diversity in Taiwan.
07/25 ~ 26	The "2008 Frog Year Teacher Training Camp" was held with the intention of incubating seed-teachers to assist in the promotion of "Everybody Loves Frogs", so more people could understanding the importance of frog conservation, and to join-in in the work of protecting frogs.
07/27	The nighttime activities originally scheduled for today are cancelled due to Typhoon Fungwong.

Major Events

08/01 ~ 02	"2008 Frog Year Teacher Training Camp" held jointly with the Taipei Zoological Foundation, is was an event intended to incubate seed-teachers to assist promoting "Everybody Loves Frogs" concept, so thus all would join in the work of conserving frogs.
08/02	The exhibit titled "Zoo Poo Poo" is going-on at all of the Zoo's 17 public restrooms locations. Learning camp "Poo Poo Easy Go" and education promotional activities "I Come Over to Collect Poo" are also taking place.
08/06	The special exhibit on bats titled "BATs = Biology & Arts & Technology", co-organized by the Zoo and Tainan National University of the Arts, started from today to December 17 at the Education Center.
08/14	The special assessment review meeting on the introduction of Giant Pandas convened by the Council of Agriculture dispatched a special inspection team to the Taipei Zoo for feasibly screenings. We passed the screenings with flying colors.
08/27	Eleven-year-old female Koala Bear "Eve" died of malignant tumor.
08/30 ~ 31	In cooperation with institutions including the Jinwen University of Science and Technology, industries, humanities groups pertinent to the Wen Shan District were invited to the Zoo Mall for the "Falling for Maokong ~ A Creative Lifestyle Carnival" event. This is an event intended to aid the Maokong area with its development of local-feature products and activities.
09/01	28 staffs from the Taipei City Government representing 21 different departments attended the first Taipei City Government Panda Task Force Meeting convened today.
09/08 ~ 19	Dispatched staffs over to Ocean Park Hong Kong to learn about feeding Giant Pandas in captivity and pertinent medical technologies.
09/13 ~ 14	Typhoon Sinlaku struck Taiwan. The Zoo closed for two days, 9/13 ~ 14.
09/20	The special bat exhibit held "A Lucky Star – Parent-Child DIY Bat's Accessories" series.
09/27	The special exhibit on bats held "The Naughty Little Bats: An Educational Activity about Making Bats with Clay".
09/28 - 29	Typhoon Jangmi struck Taiwan. The Zoo closed for two days 9/28 ~ 29.
10/02	Giant Panda experts came from China to the Taipei Zoo to inspect the Panda House facilities and to visit our Veterinary Division and Rescue Center.
10/09 ~ 23	Dispatched staff members to the Bifeng Gorge Base of China Panda Protection and Research Center, to participate hands-on in operations including the feeding and caretaking management of Tuan Tuan and Yuan Yuan, quarantine inspections and medical treatments.
10/15~25	Zoo director and related personnel attended the 63 rd Annual Conference of the World Association of Zoos and Aquariums (WAZA) and the Annual Meeting of the Conservation Breeding Specialist Group (CBSG) at the Adelaide Zoo in Australia.
10/19	Held the Nine Year Curriculum on Science and Life Technology – Nature Explorations and Scientific Techniques on Collecting Data/Record Training Camp", which was attended by about 240 pupils.
10/19 ~ 23	Dispatched staff members to attend the 19 th International Zoo Educator (IZE) Biennial Conference at the Adelaide Zoo in Australia.
10/31~11/02	Three specialists including Dr. Suzan Murray, National Zoo chief veterinarian and Head of the Department of Animal Health, came to Taipei Zoo attending the Conservation Breeding of Endangered Carnivores Seminar.
11/02	The Zoo held the 22 nd Anniversary of Relocation to Muzha celebrations using the theme "Meeting with Friends, Progressing in Wildlife Conservation" to welcome the upcoming arrival of the Giant Pandas and a pledge to continue its efforts in animal conservation and animal welfare.
11/06	Mayor Hau and twenty City government officials including our Zoo director arrived at the Grand Hotel as invited guests of the Straits Exchange Foundation (SEF), attending the press conference where the two sides of Taiwan Straits are to exchange gifts -- Formosan Serow and Formosan Sika Deer for Giant Pandas and Dove Trees.
11/06	In cooperation with the Department of Education of Taipei City and the Ming-Dao Primary School, the 2008 Recreation Activities for Taipei City Public and Private Primary School Self-Contained Special Education Class – "the Dancing Elves' Music of Life" was held at the front entrance courtyard.
11/16	Held the "One Hundred People, One Hundred Drawings of Bears" event at the corridor in front of the Lecture Hall. A total of 99 students attended.
12/12	Invited the Dean of School of Veterinary Medicine National Taiwan University and related specialists to form the Giant Panda Medical Treatment Team, and convened its meeting.
12/12 ~ 17	Sent a team of 4 including veterinarians and keepers to Bifeng Gorge Base of China Panda Protection and Research Center in Sichuan to learn about the feeding and caretaking management of Giant Pandas.
12/23	Giant Pandas "Tuan Tuan" and "Yuan Yuan" arrived at the Zoo at 7:10 pm, and proceeded to the Panda House to begin quarantine.
12/24	"Welcome, Giant Pandas Tuan Tuan and Yuan Yuan" ceremony was held at the conference hall of the Panda House. Mayor Hau was the host, and in attendance were more than fifty press medias, international and domestic, and no fewer than ten SNG Live reports. The head of China delegation, Zhao Xue Ming, presented the Giant Panda Genealogy as a gift.
12/30	The Zoo cooperated with Mr. Teng-Cheng Li of Pingtung County through the Formosan Black Bear Conservation Breeding Program of the Animal Adoption Project, producing one male cub which weighed 250 to 300 g at birth.

Statistics Data



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● Taipei Zoo 2008 Annual Animal Medical Record

Unit : Animal (individual)

Treatment Item	Medication	Anesthesia	Vaccination	Health Checkup	Disease Prevention	Injection Drug Delivery	Debridement	Bandaging	Vermifuge
Total	1904	379	199	387	531	3451	555	98	1154
Treatment Item	Surgery	External Medication	Dipping	Examination	Removal of Gastric Acid Secretion	Hoof and Claw Trimming	Scaling	Observation	Branding
Total	111	799	52	2411		109	31	1253	
Treatment Item	Ear Marking	Chip Injection	Quarantine	Feeding	Shelter Spray Change	Input Administration	Acupuncture	Old records Medical	Morphometric Measures
Total		116	87	172	148	699	93	7	322

● Taipei Zoo 2008 Annual Animal Inspection and other Records

Unit : Animal (individual)

Item	Number of Animals (Individual/Times)			Number of Times
X-ray examination	324			1022
Clinical Pathology Examination	4085			22864
Microbe Examination	58			58
Admission Quarantine	Mammals	Birds	Reptiles	
	28	14	8	
Specimen Production	Whole-body Taxidermic specimen	Skull	Whole-body Skeleton	Identification of Fur
	11	8	1	4

Statistics Data

● List of International Conferences Attended in 2008

Month	Name of Conference	Number of Zoo Staff Member
1	Attended the Fifth European Zoo Nutrition Conference at the Chester Zoo in England, and published 5 thesis papers	1
4	Sent staff to organize the Zoo Animal Nutrition Workshop at the Mumbai Zoo in India, and served as instructor	1
6	Attended the South Asia and Southeast Asia Seminar on Buying/Selling and Conservation of Pangolins in Singapore	1
8	Attended the 3 rd International Meeting on Asian Zoo/ Wildlife Medicine and Conservation (AZWMC) in Indonesia	1
9	Attended the 14 th Annual Conference of the Japanese Society of Zoo and Wildlife Medicine	1
10	Attended the 63 rd Annual Conference of the World Association of Zoos and Aquariums (WAZA) 2008 in Adelaide, Australia, and the Pre-Conference Conservation Breeding Specialist Group Annual Meeting	1
10	Attended the 63 rd Annual Conference of the World Association of Zoos and Aquariums (WAZA) 2008 in Adelaide, Australia	1
10	Attended the Annual Convention of the United States American Association of Zoo Veterinarians and the Association of Reptilian and Amphibian Veterinarians 2008 in San Diego, and published thesis on reptilian medicine	1
10	Assisted the Wildlife Conservation Society of Singapore organizing the Wildlife Nutrition Workshop and served as instructor	1
10	Attended the 19 th Biennial International Zoo Educator's Conference 2008 (IZE) in Australia	2
11	Attended the 2 nd Asian Lepidoptera Conservation Symposium 2008 in Penang, Malaysia, and published a report on the subject	1
11	Held the Conservation Breeding of Endangered Carnivores Seminar at the Taipei Zoo	88
11	Attended the Operation and Management of Wild Animal Rescue Centre at the Kadoorie Farm & Botanic Garden of Hong Kong	2
Total	13 events	102 people



● List of Observation Visits and Exchanges Attended in 2008

Month	Name of Event	Number of Zoo Staff Member
1	To the Leipzig Zoo in Germany to exchange medical treatments and feed management experiences of pangolins	2
3	To the Seoul Grand Park in Korea to negotiate and to ascertain issues pertinent to the wild release of Dan-Dan the Red-crowned Crane, and our bilateral goodwill exchanges	1
3	Accompanied the Red-crowned Crane to Seoul, Korea for its wild release by the Seoul Zoo of Korea. This event was also an international natural exchange	2
4	Attended the City Government Creative Proposal Overseas Benchmark Study at Tokyo Japan	2
6	Witnessed the signing of the “Shanghai 2010 World Expo - the Urban Best Practices Area (UBPA)”, held observations of the locale and visited its urban city development	1
6	A New Outlook on Animal Welfare – An Animal Management and Medical Treatment Training Course	150
7	Attended the preliminary talks on the Remediation and the Return of Protected Species Horsfield's Tortoise to its Original Range Project at the Xinjiang Uighur Autonomous Region in China, and visited the Nature Reserve in Huocheng to investigate more about the tortoise ecology of Sichuan	1
9	Accompanied the Straits Exchange Foundation's task team to Shenzhen, China to negotiate issues relative to the introduction of Giant Pandas	1
9	Attended the training program held at the Ocean Park in Hong Kong about the Giant Pandas, on subjects of husbandry, animal training and medical treatments	4
10	Traveled to the United States Behler Chelonian Center in California, to discuss with the field office of the Herpetological Associates, Inc, about the conservation breeding of the Burmese starred tortoise	2
10	Traveled to England for research project titled " Population genetic structure and echolocation calls in the cave-dwelling bats, <i>Hipposideros terasensis</i> and <i>Miniopterus schreibersii</i> "	1
10	Traveled to Bifeng Gorge Base of China Panda Protection and Research Center in Sichuan for professional keeper training about the feeding and caretaking management of Giant Pandas.	5
12	Traveled to Sichuan China to negotiate issues pertinent to the transport and delivery of the Pandas	1
12	Traveled to Bifeng Gorge Base of China Panda Protection and Research Center in Sichuan for training and to take part in matters preparing the Giant Pandas for transport and delivery	6
12	Traveled to Sichuan China to assist in the transport and the delivery of the Giant Pandas	4
Total	15 events	183 people

● List of Themed Educational Events in 2008

Date	Name of Events	Co-Organizers
01/06	An animal adoption event : the movie screening of “Arctic Tale”	Flash Forward Entertainment
01/10	Mobile Zoo –six classes of third graders from Taipei Municipal Da Li Primary School	
01/26~27	An animal adoption event: the maiden journey of QQZOO	TVbean
01/27	“Cardiac Children’s Animal Conservation Training Course”	Care Cardiac Children Association R.O.C.
02/01	Mobile Zoo – the Front Entrance Inauguration Ceremony of the Hsinchu Zoo, our Sister Zoo	Hsinchu Zoo
02/17	The Good Fortune for the New Year and Animal Lantern Riddles Event for 2008	
03/06	Mobile Zoo – Chaoju Home for the Aged	
03/20	World Earth Day Series Events – planting seeds of hope and goodwill of love, minority children’s day in the Zoo	World Vision Taiwan
03/27	Red-crowned Crane “Dan Dan” Release Back to the Wild Press Conference	
03/29~30	The homecoming events of animal adopters: Donate Used Books, Act to Love Earth!	
04/01~04/30	2008 World Earth Day event “How Do I Love Earth” – a children’s drawing contest	
04/12	Activities on the conservation and education of Gorillas	Zoological Society of Taipei
04/12	Members Meeting of the Taiwan Cetacean Society and Photography Exhibit	
04/13	BAIS Talented Mathematics adoption activities	
04/13	Movie screening of the Documentary of Formosan Black Bear	National Geographic Channel
04/19	LOHAS and Environmental Friendly Day of Wenshan District	Fund Management Committee of Refuse Incineration Feedback of Wenshan District
04/20	2008 World Earth Day event: “Be Kind to Earth Zoo Day”	Taipei Water Department, Department of Environment Protection Taipei City Government, Taipei Zoological Foundation
04/26	Mobile Zoo – Children’s Month at the Taipei Zoo	Department of Education, Taipei City Government
05/03	Opening activities for the TOTOTA Butterfly Month	
05/04	parent-child events of GTV	
05/10	Mother’s Day Appreciation event : “Mother’s Love Shines on the Great Land”	The Alumni Association of Ming Chuan University
05/11~12	Donate Used Books, Act to Love Earth !	
05/24	Giant Pandas Drawing Contest	C.C.C.C.I.A for Giant Pandas

Statistics Data

Date	Name of Events	Co-Organizers
06/01	"Tea to Wellness" event	Wenshan District Office
06/07~08	Chinese Opera : "A Fairy Tale of the White Snake"	National Taiwan College of Performing Arts
06/21	Lights Out Day of the Summer Solstice	Taipei City Department of Environmental Protection, the Society of Wilderness
07/05	Education promotional event : "One Day Trip to Taipei Zoo 2008"	
07/12	Opening activities of the Bees on Exhibit	
07/12~08/23	"Animals' Summer 2008 – the Kingdom of Ribbity Ribbity Croak" events	
07/19~08/23	Parent-child camp : "Zoo for Frogs"	
09/02~09/21	The photography exhibit of the "Beauty of the Zoo"	Dr. Sun-Yat-sen Memorial Hall
09/13	Animal conservation and education promotional event: "Autumn Bat Sharing 2008"	Taipei Zoological Foundation
09/27	"10,000 People 10,000 Steps Walkathon"	TOYOTA
10/11,12,18,19	An animal adoption event : "Experience Printing with Canon"	CANON
10/21~11/30	A fun photography contest: "Animals on Black and White"	
11/01~14	"Giant Panda Conservation Greeting Card" design contest	
11/02	Taipei Zoo's 22 nd Anniversary Celebrations	
11/06	2008 Recreation Activities for Taipei City Public and Private Primary School Self-Contained Special Education Class	Ming-Dao Primary School
11/08	Animal conservation and education promotional event: "Autumn Bat Sharing 2008"	
11/15~16	Living with Ocean – A Fish's Perspective	
11/16	"One Hundred People, One Hundred Drawings of Bears" event	
11/22,29	A Joyful Encounter with Bats – A Peek into the Home Life and Daily Necessities of Bats	
11/23~12/28	Who's Panda Master	
12/06~07	Children's adoption of "A Midsummer Night's Dream"	National Taiwan College of Performing Arts
12/07	A Merry Swiss Christmas	Taipei Zoological Foundation
12/09	2008 Activities for International Anti-Corruption Day	Taipei City Department of Government Ethics
12/19	Seminar on Creating an Eco-LOHAS Center	Wenshan District Office



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● Themed Exhibits in 2008

Date	Name of Event	Co-Organizer
02/07~12/14	A Year of the Rat -- Rodentia Exhibit 2008	
02/16~4/30	Playing with Cricket Exhibition	Society for Wildlife and Nature
05/03~12/31	World's Butterfly Exhibit	Ho-Tai (Toyota) Motors
96/06/30~97/12/31	Special Exhibition of Frogs in Taiwan	
07/12~12/31	Bees on Exhibit	
08/06~12/07	2008 Science Season: BATs = Biology + Arts + Technology	National Science Council, Tainan National University of the Arts

● Seminars and Conferences in 2008

Date	Name of Event	Co-Organizer
03/08	2008 Comparative Pathology Conference	
03/09,15,16	Nine Year Curriculum on Science and Life Technology – Teacher's Training on Environment and Education of Insects	
06/23-25	A New Outlook on Animal Welfare – An Animal Management and Medical Treatment Training Course	Taiwan Association of Zoos and Aquariums
07/16,17 09/20,27 10/04,	2008 Teacher Training Camp of Wetlands Ecological Education	Wetlands Taiwan, Taichung County Yong-An Elementary School, Tainan County Government Department of Agriculture, Kang Hsuan Educational Foundation
07/25~26 08/02~03	2008 Teacher Training Camp of the Frog Year	Taipei Zoological Foundation
10/19,25	National Science Council's Nature Explorations and Scientific Techniques on Collecting Data/Record Training Camp	Hsinchu Zoo, Taiwan Nature Conservation Foundation, Changhua Ecological Education Association
10/31~11/02	Conservation Breeding of Endangered Carnivores Seminar	
12/19	Seminar on Creating an Eco-LOHAS Center	Wenshan District Office



● List of Publications in 2008

Category	Title	Publication Date
Periodicals	Taipei Zoo Quarterly (Issue 109-112)	Jan, April, July and Oct of 2008
	Volunteer Monthly	Beginning of each month
	Annual Zoo Journal	December 2008
	Annual Report of Taipei Zoo	November 2008
Special Publication	Adventures in Green Island	July 2008
	A Piggy Bank Full of Love	December 2008
Learning List	Learning List Meeting Giant Pandas	November 2008
Fold-out Pamphlets	Playing with Cricket Exhibition	February 2008
	Animals' Summer 2008 – the Kingdom of Ribbity Ribbity Croak	July 2008
Poster	Animals' Summer 2008 – the Kingdom of Ribbity Ribbity Croak	July 2008
	Posters of BAT exhibition	July 2008
Invitations	Animals' Summer 2008 – the Kingdom of Ribbity Ribbity Croak	July 2008
	Panda Cards	December 2008
Stickers	Year of the Rat Exhibit Stickers	January 2008
	Animals' Summer 2008 –Ribbity Ribbity Stickers	July 2008
	Pandas Stickers	November 2008
Calendar	2009 Animal Desk Calendars	December 2008
Souvenirs	Year of the Ox Commemorative Gold Coins	January 2008
	Red-crowned Crane L-shaped Clips	March 2008
	World Earth day Commemorative Pins	April 2008
	Bat Postcards	July 2008
	Bat Sticky Pads	July 2008
	Bat Mugs	July 2008
	Animals' Summer 2008 –Ribbity Ribbity Fans	July 2008
	Frog Pins	August 2008
	Panda Hats	November 2008
	Panda Pencils	November 2008
	Panda Arm Badges	November 2008
	Panda Mugs	December 2008
	Panda Pins	December 2008
Panda Postcards	December 2008	

Statistics Data

● 2008 Library Statistics

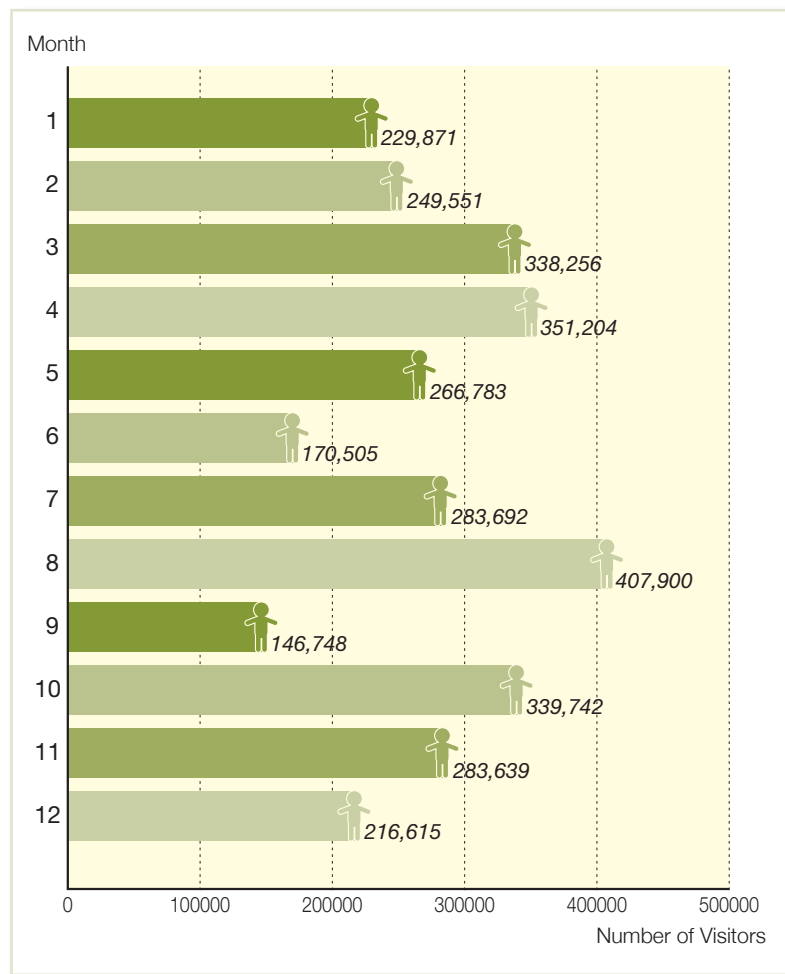
Item	Chinese Books	Western Books	Japanese Books	Total
Number (Books)	7,542	4,618	526	12,686

● 2008 Numbers of Borrowing Statistics of Library Collection

Number of Borrowers	Number of Borrowed Books
1,170	3,394

● Statistical Chart on the Number of Visitors per Month in 2008

Month	Number of Visitors
1	229,871
2	249,551
3	338,256
4	351,204
5	266,783
6	170,505
7	283,629
8	407,900
9	146,748
10	339,742
11	283,639
12	216,615
Total	3,284,443





● Taipei Zoo's Budgeted and Actual Expenditures for Fiscal Year 2008

Item	Budgeted (\$NT)	Actual (\$NT)	Implementation Rate
◎Total Operation Expenditure	400,172,428	394,010,532	98.46%
Administration and management	61,222,857	60,658,983	99.08%
Animal conservation and exhibition	120,593,455	117,097,249	97.10%
Environmental and ecological conservation	41,531,155	41,510,482	99.95%
Education and promotion	39,537,752	38,347,757	96.99%
Animal health care	18,883,213	18,739,772	99.24%
Visitor services	61,907,460	61,350,973	99.10%
Machine and equipment maintenance	56,496,536	56,305,316	99.66%
◎Total Capital Expenditure	92,926,500	84,644,709	91.09%
Constructions	76,089,593	68,634,788	90.20%
Transportation equipment	1,454,000	1,447,444	99.55%
Other equipment	15,382,907	14,562,477	94.67%
Total	493,098,928	478,655,241	97.07%



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