



# 3 動物保育與研究 Animal Conservation and Research

## 動物經營管理

### (一) 動物飼養展示與繁殖

園區飼養展示之動物以脊椎動物為主，共約401種、2,614隻。本年度內保育繁殖計畫成果，累計達42種、115隻動物個體，繁殖青鸞、大寶冠鳥、白鳳頭鸚鵡、水獺、侏儒河馬、馬來貘、弓角羚羊、白頸狐猴、環尾狐猴、阿氏夜猴、穿山甲、人猿、馬來獼猴、臺灣長鬃山

羊、二趾樹獼、大紅鶴、鸚鵡、國王企鵝、黑腳企鵝、長頸鹿、長鼻浣熊等珍貴動物。

另外，對於動物醫療健康照護技術持續精進，許多照養動物個體均已超過其野外生命年限，對該等老齡動物加強觀察照護，並針對動物老齡需求進行場地空間與日糧供給的調整。

### 飼育動物數量統計表

種類	哺乳類		鳥類		爬蟲類		兩棲類		魚類		總計	
	種數	隻數	種數	隻數	種數	隻數	種數	隻數	種數	隻數	種數	隻數
99年底	110	865	128	869	125	596	26	203	12	81	401	2614



二趾樹獼「小財仔」  
●2月17日出生，大年初四接財神的日子  
●父「大懶」、母「公主」



侏儒河馬「小侏」，本園第一隻人工哺育成功的侏儒河馬。  
●9月15日出生，至12月12日止體重23.8kg  
●父「夏傑」、母「嬌秋」



小馬來貘「獺芳」  
●5月3日出生，至12月31日止體重180kg  
●父「獺卡」、母「馬雅」

## Animal Management

### (I) Animal Exhibition and Breeding

The Taipei Zoo mainly displays vertebrate animals with roughly 401 species represented totaling 2,614 in number. The number of animals bred under the Conservayion Breeding Program accumulated to 115 animals of 42 species in 2010, including Great Argus (*Argusianus argus*), Great Curassow (*Crax rubra*), White Cockatoo (*Cacatua alba*), Chinese Otter (*Lutra lutra chinensis*), Pygmy Hippopotamus (*Hexaprotodon liberiensis*), Malayan Tapir (*Tapirus indicus*), Addax (*Addax nasomaculatus*), Ruffed Lemur (*Varecia variegata*), Ring-tailed Lemur (*Lemur catta*), Azara's Night Monkey (*Aotus azarae*), Formosan Pangolin (*Manis pentadactyla pentadactyla*), Bornean Orangutan (*Pongo pygmaeus*), Crab-eating Macaque (*Macaca fascicularis*), Formosan Serow (*Capricornis swinhoei*), Linnaeus's Two-toed Sloth (*Choloepus didactylus*), Greater Flamingo (*Phoenicopterus ruber*), Emu (*Dromaius novaehollandiae*), King Penguin (*Aptenodytes patagonicus*), Jackass Penguin (*Spheniscus demersus*), Giraffe (*Giraffa camelopardalis*) and South American Coati (*Nasua nasua*).

Furthermore, many animals in our care have lived past their life expectancy in the wild, and we are stepping up observation and care for such elderly animals, as well as adjusting space and daily provisions according to their needs.



「小侏」20天大時，由於媽媽的乳房發炎吸不到奶，動物保母只好想辦法將「小侏」和媽媽隔開進行人工哺育，營養師特別調製不同於一般草食動物，蛋白質濃度更高的代乳配方。「小侏」也很適應動物園調配的代乳，動物管理員在代替媽媽餵養10天後，媽媽的乳房也恢復健康，管理員也將「小侏」還給媽媽。

### Statistics of Animals

Category	Mammals		Birds		Reptiles		Amphibians		Fish		Total	
	Species	Numbers	Species	Numbers	Species	Numbers	Species	Numbers	Species	Numbers	Species	Numbers
Time												
End of 2010	110	865	128	869	125	596	26	203	12	81	401	2614



穿山甲  
●12月9日出生。  
●近30年本園成功繁殖的第6隻



大寶冠鳥「寶貝」，園內首次繁殖。  
●6月3日出生  
●父「寶石」、母「寶珠」

## (二) 動物醫療保健及防疫

在動物醫療保健方面，除執行日常突發性之外傷及內科疾病治療外，且依計畫進行動物的健康檢查及檢測等工作；並協助處理中央農政單位查緝並沒入之保育類動物、國內民眾贈入及國際間交換的動物檢疫工作，計50隻；另救傷動物108隻，協助地方政府照顧收容穿山甲、水鹿、山羌、鼬獾和臺灣藍鵲等動物，以及多次協助臺北市鳥會、桃園縣政府治療救傷之鳥類及其他哺乳動物。

臺大醫院公館分院贈送之電腦斷層掃描儀，於98年11月20日移入本園，提升動物福利與醫療照護的品質。已運用於本園無尾熊淋巴肉瘤之診斷、臺灣獼猴頸部脊椎異常判定、美洲豹之腹部腫瘤、黑豹之子宮蓄膿症、黃鼠狼之腎上腺腫瘤、雲豹之副甲狀腺腫瘤等診斷處理。

### ■熊鷹救傷成果

97年臺北縣烏來鄉巡山員在山區發現一隻被十字弓箭射中胸口的熊鷹，並將熊

鷹送至本園救治，術後經過長達半年的照顧治療，在渡過最危險的階段後，由臺北縣政府及特有生物保育研究中心接手熊鷹的野放訓練，於99年1月25日在農委會林務局局長顏仁德、臺北縣縣長周錫璋、特有生物中心主任湯曉虞及本園園長葉傑生等同見證下，重回大自然的懷抱，為臺灣最大型鷹鷂的保育史留下重要的一頁。

## (三) 保育類野生動物收容

本園野生動物收容中心專責收容保育主管機關查獲之走私與違法獵捕、販售與展示的保育類野生動物。本年度共計支援查緝38人次，其中協助處理查緝收容種類共18種、88隻。並持續協助各縣市政府相關單位所委託處理之野生動物救傷，與持續照養歷年所委託收容之各類動物，包含熊科動物、大型貓科動物、鳥類(鸚鵡)、靈長類動物、兩棲爬蟲動物，計110種、1,004隻；並協助林務局辦理經濟部國貿局CITES列管物種出口繁殖能力查驗，共20個繁殖場；另提供收容動物專業技術研習與教育觀摩活動等解說導覽服務，導覽參觀計27個團體，共1,200人次，該申請團體多為國



雄鷹救傷

## (II) Animal Health Care and Epidemic Prevention

In addition to the treatment of accidental external wounds and illnesses, as well as scheduled animal health inspections, we also treat illegal possessed animals that were confiscated by the central agricultural authority, those given to the Zoo by the general public, or from inter-zoo exchanges; which accumulated to 50 animals in total. Furthermore, we rescued 108 injured animals, provided aid to local governments with caring for animals in their custody, including Formosan Pangolin, Formosan Sambar (*Rusa unicolor swinhoii*), Formosan Reeve's Muntjac (*Muntiacus reevesi micrurus*), Formosan Ferret-badger (*Melogale moschata subaurantiaca*) and Formosan Magpie (*Urocissa caerulea*), and on numerous occasions assisted the Wild Bird Society of Taipei and Taoyuan County Government with treating injured birds and other mammals.

The CT scanner donated by National Taiwan University Hospital – Gongguan Branch was moved into Taipei Zoo on November 20<sup>th</sup>, 2009 and enhance animal welfare and medical care quality. It has been used for diagnosing lymphosarcoma in one of our Koalas (*Phascolarctos cinereus*), abnormal cervical spine of a Formosan Rock Macaque (*Macaca cyclopsis*), abdominal tumor of a Jaguar (*Panthera onca*), pyometra syndrome in a black Leopard (*Panthera pardus*), adrenal tumor in a Siberian Weasel (*Mustela sibirica*), and prathyroid tumor in a Clouded Leopard (*Neofelis nebulosa*).

### ■Injured mountain hawk-eagle rescue results

A mountain patrol found a Mountain Hawk-eagle (*Spizaetus nipalensis*) that was shot by a crossbow in the chest in the mountain area of Wulai Township, Taipei County in 2008, and sent the Mountain Hawk-eagle to Taipei Zoo for treatment. The Mountain Hawk-eagle was able to pull through the most dangerous stage after six

months of care and treatment after surgery, and was taken over by Taipei County Government and the Endemic Species Research Institute for training so it could be released into the wild. On January 25<sup>th</sup>, 2010, the Mountain Hawk-eagle's release into the wild was witnessed by Director Yen Jen-Te of the Forestry Bureau, Council of Agriculture, Executive Yuan, Magistrate Chou His-Wei of Taipei County, Director Shang Hsiao-Yu of the Endemic Species Research Institute, and Director Jason Yeh of Taipei Zoo; this was an important page in the conservation history of Taiwan's largest raptor.

## (III) Care for Protected Wild Animals

The Zoo's Wildlife Rescue Center is dedicated to taking in wild animals under conservation confiscated by conservation authorities due to smuggling, illegal hunting, selling and displaying. In 2010, we helped investigate 38 people, assisted with the handling of 88 animals of 18 species seized from the investigations and took them in. We continue to assist with wild animal rescues commissioned by county and municipal government agencies, and will keep on taking-in and adopting the many animals entrusted by authorities over the years, including bears, big cats, birds (parrots), primates, amphibians and reptiles, amounting to 1,004 animals representing 110 species. We assisted the Forestry Bureau with inspecting 20 breeding farms of animals controlled by CITES. Furthermore, we provide guided tour services for animal expertise workshops and educational activities; 27 groups with a total of 1,200 people went on these tours, most of which were teachers and students in biology related departments, from the Animal Protection Office, forest police force, Mainland wildlife trade and visit groups, and Taiwan Mobile. We sent personnel to Taipei City Fire Department 3 times to give the lecture on "wild animal conservation and restraint," and provided aid to Taipei City Animal Protection Office with holding 3 seminars on wild animal management and





本園人員至嘉義進行「馬來長吻鱷」移出保定

內生物相關科系師生、動物保護處、森林警察隊、大陸野生動物貿易參訪團、台灣大哥大等單位。另派員至臺北市消防局講習「野生動物保育及野生動物之保定」，共3梯次，也協助臺北市動物保護處辦理野生動物管理研討會以及動物保護先鋒營隊之教學研習共3梯次。保育工作成果亦受媒體矚目而予進行專題報導，如：聯合報導，透過臺北市立動物園保育研究中心與長榮航空之連繫，促成香港瀕危廟龜赴美重生、臺北廣播電臺「臺北動物起床號」節目專訪緬甸星龜的保育及收容動物的飼養。為多元推廣生態保育觀念，本園亦協助媒體節目製作，如：公視下課花路米專題節目、年代新聞採訪等。

#### (四) 動物引進及交換

為更新動物血緣與增加教育展示效益，陸續與國內外動物園或民間飼養者進行動物繁殖合作、交換或互贈，計引進鳥類3種5隻、哺乳類11種25隻、爬蟲類3種4隻、兩棲類3種17隻，並續與日本多摩動物園、日本琉球動物園、日本上野動物園及俄羅斯莫斯科動物園等洽談中。重要成果如下：

- ◎新光兆豐休閒農場交換案：換入北美浣熊1雌、灰頸冠鶴1雌，換出灰頸冠鶴1雄。
- ◎高雄壽山動物園交換案：換入駱馬1雌，換出白手長臂猿1雄、臺灣長鬃山羊1雄、山羌1雌、查普曼斑馬3雄、伊蘭羚羊2雌、北美美髯羊3雄。
- ◎韓國首爾動物園交換案：換入花豹1雄。
- ◎日本多摩動物園受贈案：贈出黑面琵鷺1雄。
- ◎屏東科技大學保育類野生動物收容中心受贈案：贈出截尾猴(胭脂猴)1節育、白手長臂猿1雄。
- ◎南投集集特生中心贈與案：贈入大赤鼯鼠1雌、山羌3雌、紅尾蚺1雌。
- ◎桃園縣政府贈與案：贈入鼬獾1雌。
- ◎臺北縣政府動物救傷中心贈與案：贈入水鹿1雌。
- ◎新竹市立動物園受贈案：贈出聖鷄6隻、紅鷄6隻。
- ◎嘉義縣竹崎鄉龍群鱷魚養殖場贈與案：贈入馬來長吻鱷1雄1雌。
- ◎動物採購案：購入黃腹琉璃金剛鸚鵡3雌、折衷鸚鵡1雄、獅子兔2對、垂耳兔2對、侏儒兔2對、道奇兔2對、祕魯鱷蜥1隻、飾紋角蛙5隻、小丑蛙2隻、東方鈴蟾10隻。

the Animal Protection Pioneer Camp. Results of our conservation work attracted the attention of media, who turned them into special reports, e.g. the news report of United Daily News on how Taipei Zoo Conservation and Research Center contacted Eva Air and helped send Yellow-Headed Temple Turtle (*Heosemys annandalii*) to the U.S., and the radio program "Wake-up Call from Taipei Animals" of Taipei Broadcasting Station gave a special report on the conservation and shelter of Burmese Star Tortoise (*Geochelone platynota*). In order to promote ecological conservation concepts, we also assisted media with program production, e.g.: Public Television Service's "Follow Me Go!" and interview of Era Communication Co.

#### (IV) Introduction and Exchange of Animals

For purposes of renewing animal bloodlines and to enrich the efficacy of educational exhibits, the Taipei Zoo has engaged in exchanges of animals, breeding programs, and gift-giving with other foreign and domestic zoos, and private breeders. The total number of animals introduced includes 5 birds of 3 species, 25 mammals of 11 species, 4 reptiles of 3 species, and 17 amphibians of 3 species. We are also negotiating with the Tama Zoo, the zoo of Okinawa Kids Discovery Kingdom, Ueno Zoo and Moscow Zoo. Major results are as follows:

- ◎Exchange with Shin Kong Chao Feng Ranch & Resort: Received 1 female Raccoon (*Procyon lotor*) and 1 female Grey Crowned-crane (*Balearica regulorum*) in exchange for 1 male Grey Crowned-crane.
- ◎Exchange with Kaohsiung Shou Shan Zoo: Received 1 female Lama (*Lama glama*) in exchange for 1 male Lar Gibbon (*Hylobates lar*), 1 male Formosan Serow, 1 female Formosan Reeve's Muntjac, 3 male Burchell's Zebras (*Equus burchellii*), 2 female Common Elands (*Taurotragus oryx*), and 3 male Barbary Sheep (*Ammotragus lervia*).

- ◎Exchange with Seoul Zoo: Received 1 male Leopard.
- ◎Gifts to Tama Zoo: Gave 1 male Black-faced Spoonbill (*Platalea minor*).
- ◎Gifts to National Pingtung University of Science and Technology Innovation and Practical Training Center: Gave 1 contracepted Stump-tailed Macaque (*Macaca arctoides*), and 1 male Lar Gibbon.
- ◎Gifts from Endemic Species Research Institute: Received 1 female Formosan Giant Flying Squirrel (*Petaurista philippensis grandis*), 3 female Formosan Reeve's Muntjac, and 1 female Boa Constrictor (*Boa constrictor*).
- ◎Gifts from Taoyuan County Government: Received 1 female Formosan Ferret-badger.
- ◎Gifts from Taipei County Government Animal Rescue Center: Received 1 female Formosan Sambar.
- ◎Gifts to Hsinchu Zoo: Gave 6 Sacred Ibis (*Threskiornis aethiopicus*) and 6 Scarlet Ibis (*Eudocimus ruber*).
- ◎Gifts from Jhuci Township Long Qun Crocodile Farm: Received 1 male and 1 female Tomistoma (*Tomistoma schlegelii*).
- ◎Animal procurement: Procured 3 female Blue-and-Yellow Macaw (*Ara ararauna*), 1 male Eclectus Parrot (*Eclectus roratus*), 2 pairs of Lion Head Rabbits, 2 pairs of American Fuzzy Lop Rabbits, 2 pairs of Netherland Dwarf Rabbits, 2 pairs of Dutch Rabbits, 1 Northern Caiman Lizard (*Dracaena guianensis*), 5 Ornate Horned Frogs (*Ceratophrys ornata*), 2 Budgett's Frogs (*Lepidobatrachus laevis*), and 10 Oriental Fire-bellied Toad (*Bombina orientalis*).



「馬來長吻鱷」到達本園亞洲熱帶雨林區



### (五) 與學術界建教合作及推廣教育

續與臺灣大學獸醫學院在動物診療技術方面，保持密切建教合作關係，助益本園對動物死亡的病因，建立完整檔案，供作本園動物疾病預防及醫療參考，並作為獸醫系所學生實習及教學研究之用。本年度計提供96次、共1,152人次臺大學生進行病理實習。

另與其他相關機構建教合作及教育推廣，或提供國內獸醫師及國內外獸醫系大學生前來實習，包括：4-5月協助臺大獸醫學院辦理人畜共通傳染病課程兩梯次共50人次及野生動物疾病學課程共2次40人次來園授課與參訪；5月國內各大學獸醫學系實習生共35人實習，提供學生野生動物醫療觀摩學習；5月馬來西亞獸醫大學實習生3位實習野生動物診療共14日；7-8月國內各大學獸醫學、生物相關、觀光遊憩管理等科系實習生及國際候鳥計畫共60人進行為期1-2個月實習，提供學生野生動物醫療、生物學、生態學等觀摩學習，其中候

鳥計畫實習學生實習成果發表獲社會科學組第三名；8月花蓮海洋公園獸醫師3位實習臨床診療工作共4天；12月澳洲昆士蘭大學學生1位前來實習。

協助各單位辦理之演講及課程有：7月農委會防疫檢疫局「動物保定及吹箭製作」研習共2梯次、民航局專題演講「靈長類疾病」、臺大獸醫營隊來園舉辦活動、動物保護處研習課程3梯次等。

### (六) 動物認養計畫推動

動物認養計畫自92年2月推出，提供公眾接近野生動物、獲取保育資訊、支持保育工作的機會，並結合民間力量致力動物保育，有效地協助本園推動各項保育教育及提升動物福利。

年度內民眾個人認養計534人(動物褓姆 353人、動物寶貝181人)、企業認養6家。年度內接受申請動物認養計畫並經核定者共計19案。

本年度國際合作與交流推展重點：因應引進大貓熊後之飼育及繁殖，培訓本園飼養大貓熊之繁殖實務技能，並積極參與大貓熊相關之國際性會議；持續參與緬甸星龜國際保育繁殖工作；辦理相關專業研討會，進行國際專業交流。

99年5月28日本園與四川臥龍保護大熊貓研

究中心共同簽署「2010年大貓熊團團圓圓飼育繁殖合作備忘錄」，由市長郝龍斌及四川省書記劉奇葆親臨見證。透過合作備忘錄之簽署，確認雙方進一步開展大貓熊「團團」、「圓圓」繁殖技術交流，建立長期研究合作關係，為該中心對本園大貓熊飼育繁殖技術支援之明確承諾，為重要之合作里程碑。



「2010年大貓熊團團圓圓飼育繁殖合作備忘錄簽署儀式」

### (V) Cooperation with Academia to Promote Animal Education

Taipei Zoo continues to work closely with the School of Veterinary Medicine of National Taiwan University in animal clinical technique exchanges, maintaining a good cooperative relationship with academia to construct a complete database on the cause of death of animals in our zoo, which will be used internally as materials pertinent to animal disease prevention and medical reference, as well as for veterinary students and interns to use for teaching and research purposes. In 2010, a total of 96 internship opportunities were provided to 1,152 NTU students for training in pathology.

Cooperative education and education promotion with other institutions, or internship opportunities for veterinarians or veterinary students in Taiwan and overseas include: In April-May, we assisted School of Veterinary Medicine of National Taiwan University with holding 2 courses on zoonotic diseases for 50 students and 2 courses on wildlife diseases for 40 students; In May, we offered 35 internship opportunities to veterinary students, allowing them to learn medical treatment for wild animals; In May, 3 interns at the University of Veterinary Medicine of Malaysia practiced wildlife treatment for 14 days in Taipei Zoo; In July-August, a total of 60 interns at veterinary, biology related and tourism management departments of domestic universities, as well as from the International Migratory Bird Project engaged in a 1-2 month internship, giving them the opportunity to observe and learn wildlife medical treatment, biology, and ecology, in which interns of the

International Migratory Bird Project received third place in the social science division of the results presentation; In August, 3 veterinarians of Hualien Far Glory Ocean Park practiced clinical treatment for 4 days; In December, 1 student came from The University of Queensland, Australia for an internship at Taipei Zoo.

Lectures and courses of other agencies that we provided aid to include: 2 batches of the workshop on "animal restraint and dart making" of the Bureau of Animal and Plant Health Inspection and Quarantine, Council of Agriculture in July, the special topic lecture "primate diseases" of the Civil Aeronautics Administration, activities in Taipei Zoo of the NTU veterinary camp, and 3 batches of workshops of the Animal Protection Office.

### (VI) Promotion of Animal Adoption Project

The Animal Adoption Project was first launched in February 2003, intended on providing the general public with opportunities to get closer to wild animals, gain information about conservation, and to move them into supporting conservation tasks. In addition, the project also aimed to combine private forces to dedicate more effort in protecting animals, so as to effectively assist the Taipei Zoo in implementing conservation education and enhancing animal welfare.

The accumulated private-individual adopters totaled 534 for the year (353 animal nannies and 181 animal treasurers) and there were 6 corporate adopters. The number of applications for animal adoption accepted and approved in the year came to 19.



Focuses of international cooperation and exchanges this year include: Following the introduction of the Giant Pandas, Taipei Zoo directed efforts to the caring, feeding and breeding as well as practical training of breeding techniques of these animals, and actively

participated in Giant Panda related international conferences. We continued to take part in the international conservation and breeding of the Burmese Star Tortoise. We also organized related professional seminars for expert exchanges on the global front too.

### International Cooperation and Exchanges



捷克布拉格副市長來訪



SEAZA年會



### (一) 參加國際性會議

本園在國際事務交流方面，持續參與全球及各區域的動物園相關組織，維繫與世界知名動物園或機構的互動與友誼，暢通動物交換、研究合作、人員訓練與技術交流的管道，鞏固本園在動物專業上及動物外交上的國際地位。年度內出席國際會議計11項28人次。

99年11月參加第18屆東南亞動物園暨水族館協會年會 (SEAZA)，適逢新舊任主席交接及理事空缺補選，本園以長久經營維繫的人脈，多方運作爭取支持，穩固了臺灣在協會

中的地位，會中確認本園為臺灣地區之代表，並具理事委員之投票權，葉園長代表本園當選新任理事委員，並將擔任教育委員會主席。依SEAZA未來五年重點工作行動方案所定之20個重點保育物種，由各會員國家或動物園分別負責其中一種動物之保育工作，會中本園提出由本園負責亞洲黑熊之保育推動。

### (二) 觀摩與交流

繼大貓熊引進，本園臺灣長鬃山羊及梅花鹿將於大陸山東威海市劉公島國家森林公園落地生根，為兩岸動物交流之重大事務，除大陸派員來本園學習飼養管理之外，年內3度派員赴山東威海市考察與協助大陸做好飼養管理準備。本年度內參與之觀摩與交流共4梯次7人次。

### (三) 辦理專業研討會

8月本園、臺北動物園保育教育基金會與澳大利亞商工辦事處，假本園辦理「臺澳雙邊動物研究交流研討會」，由澳洲國家研究院資深研究員Dr. Rick Shine與墨爾本大學袋鼠基因研究中心主任Dr. Jenny Graves蒞園演講與參訪。

10月假本園特展館，與台北市動物園之友協會等單位合辦「2010年海峽兩岸動物園經營管理暨珍稀動物保育研討會」，本園派員進行6場發表。

11月假本園國際會議廳以「新加坡動物園經驗分享-教育、解說及行銷」為主題，邀請新加坡動物園推廣組組長Ms. May Lok對新加坡動物園、夜間動物園及裕朗鳥園經營成果經驗分享及交流，計有全省動物園及水族館協會會員等相關單位120多人參加。

11月派本園獸醫師3位赴馬來西亞麻六甲動物園主辦「爬蟲動物醫療研習會」並擔任講師，另外香港海洋公園、馬來西亞太平動物園及新加坡動物園獸醫亦一同協助課程進行；本研習對東南亞國家及本園亞洲友好姐妹園發出邀請，並以各國動物園、救傷中心及野生動物

We signed the "2010 Giant Panda Tuan-Tuan and Yuan-Yuan Caring and Breeding MOU" with the China Conservation and Research Center for the Giant Panda, Wolong National Nature Reserve, Sichuan on May 28<sup>th</sup>, 2010, and was witnessed by Mayor Hao Lung-Pin and Sichuan Secretary Liu Chi-Pao. The MOU is a commitment of the research center to provide support in reproductive technology for the giant pandas "Tuan-Tuan" and "Yuan-Yuan," and an important milestone for both parties in establishing long-term research cooperation relationship.

### (I) Participation in International Conferences

In terms of international affairs exchanges, we continued to participate in zoo-related organizations, both 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, so as to secure our international status in animal know-how and animal diplomacy. In 2010, 28 zoo staffs attended 11 international conferences.

We attended the 18<sup>th</sup> annual conference of the Southeast Asian Zoo Association (SEAZA) in November 2010. It was in between new and old chairmen and by-election of directors, but we were able to secure Taiwan's position in the association utilizing our network to gain support from other members. The conference recognized Taipei Zoo as the representative of Taiwan, and had voting rights as a board member; Director Yeh of Taipei Zoo was elected board member of SEAZA and appointed chairman of the Educational Committee. Each state or zoo was made responsible for one of the 20 key protected species in the SEAZA's action plan for the next five years, in which Taipei Zoo was made responsible for the conservation of Asian Black Bears (*Ursus thibetanus*).

### (II) Observation Visits and Exchanges

Following the introduction of Giant Pandas, the exchange of Formosan Serow and Formosan Sika (*Cervus nippon taiouanus*) with Shandong Weihai City's Liugongdao National Forest Park is a major cross-Strait animal exchange project. Besides personnel being sent from the Mainland side to learn caring and management of the animals, this year we sent staff to Shandong Weihai City 3 times to observe and help with preparations. This year 7 staff were sent on observation visits and exchanges in 4 batches.

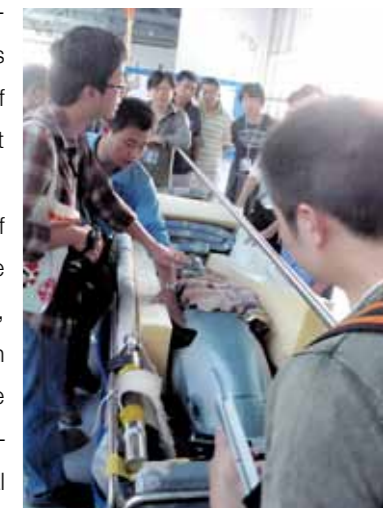
### (III) Organizing Professional Seminars

In August, Taipei Zoological Foundation and Australian Commerce and Industry Office (ACIO) held the Australia-Taiwan Animal Research Exchange. Senior research officer Dr. Rick Shine of the Australian National Research Institute and Dr. Jenny Graves, head of the ARC Centre for Kangaroo Genomics, University of Melbourne visited Taipei Zoo and gave speeches.

In October, we jointly held the "2010 Cross-Strait Zoo Operation and Rare Animals Conservation Seminar" with the Association of Friends of the Taipei Zoo in the Special Exhibit House, in which our staff made 6 presentations.

In November, we invited Ms. May Lok, head of the Education Division, Singapore Zoo to share her experiences with managing Singapore Zoo, Singapore Night Safari and Jurong bird park in the International Conference Room under the theme "Singapore Zoo experience sharing – Education, Explanation and Marketing"; a total of 120 members from the Zoo and Aquarium Association attended the conference.

In November, Taipei Zoo sent 3 veterinarians to the "Reptile Medicine Seminar" organized by Zoo Malacca, Malaysia to be lecturers. In addition, veterinarians from Ocean Park Hong Kong, Zoo Taiping, Malaysia and Singapore Zoo also assisted with the courses. This seminar sent invitations to Southeast Asian Countries and sister zoos of Taipei Zoo in Asia, and targeted



香港海洋公園動物訓練研討會—觀摩海豚運輸箱



香港海洋公園動物訓練研討會—參觀雀鳥劇場

醫學獸醫為參與研習對象，研習訓練主題為爬蟲動物醫療技術，加強在爬蟲動物麻醉、檢驗及新型設備操作，除專業授課外也讓參與獸醫直接操作動物，彼此討論病例及提出報告，以提升東南亞動物園之動物醫療技術，改善其動物醫療訓練與技術缺乏的現況。

#### (四) 其他專業交流

- ◎香港海洋公園執行長等3人蒞園參訪，洽談合作交流事宜。
- ◎澳門民政總署蒞園參訪，了解大貓熊飼養醫療管理，嗣後，該署派獸醫等5位人員來園學習大貓熊飼養管理及醫療檢疫技術。
- ◎日本釧路動物園園長蒞園洽訪，勘察本園丹頂鶴預定展示處，商談贈送丹頂鶴事宜。
- ◎香港海洋公園獸醫助理1人來園實習小動物診療技術，另該園推廣組Iding和Vivian來園

參訪教育解說展示等。

- ◎聖地牙哥動物園爬蟲館館長 Mr.Donal Boyer 及鳥園館長 Mr.David Rimlinger 來園拜訪，進行專業技術交流與考察。
- ◎大陸山東威海市獸醫1位至本園學習臺灣長鬃山羊與梅花鹿醫療與飼養管理。
- ◎法國人工繁殖專家Dr. Yann Locatelli來園進行講座，並進行專業技術交流與考察。
- ◎捷克布拉格市副市長Kousalikova等一行3人洽訪本園，並討論有關未來雙方動物交流與締結姐妹園等相關事宜。
- ◎新疆維吾爾自治區四爪陸龜保育人員來臺，進行四爪陸龜保育交流與觀摩。
- ◎為提升本園大貓熊飼養繁殖技術，本園續洽請大陸相關專家來園指導，來園專家有中國保護大貓熊研究中心周強助理工程師、張貴權副主任、李德生副局長。



赴馬來西亞主辦「爬蟲動物醫療研習會」



### 研究發展計畫

本年度本園辦理經市府審查之年度研究計畫3項，中央委辦計畫5項。另98年度經市府審查之研究計畫2項，其成果報告經本年度市府評審均獲甲等。

Zoos in each country, Rescue Centers and wild animal veterinarians; the seminar focused on reptile medical technology, strengthening reptile anesthesia, tests and new equipment operation. In addition to professional courses, veterinarians were allowed to directly come in contact with animals, discuss cases and compile reports, elevating the animal medical technology of Southeast Asian Zoos, and improving the current status of their animal medical training and lack of technology.

#### (IV) Other Professional Exchanges

- ◎A group of 3 led by the CEO of Ocean Park Hong Kong visited Taipei Zoo to discuss cooperation and exchanges.
- ◎The IACM of Macao SAR of the People's Republic of China visited Taipei Zoo to understand how to care for and manage Giant Pandas. Afterwards, it sent 5 personnel to learn how to raise and manage Giant Panda, as well as medical inspection and quarantine technology.
- ◎The director of Kushiro City Zoo visited Taipei Zoo to investigate the site prepared for exhibiting Red-crowned Crane (*Grus japonensis*), and discuss matters associated



赴馬來西亞主辦「爬蟲動物醫療研習會」

with the Red-crowned Crane that will be given.

- ◎Ocean Park Hong Kong sent 1 veterinary assistant to Taipei to practice small animal diagnosis and treatment; the park also sent Iding and Vivian of its Education Division to Taipei Zoo for the education and interpretation exhibit.
- ◎Mr. Donal Boyer, Curator of San Diego Zoo Reptile House and Mr. David Rimlinger, Curator of the Bird World visited Taipei Zoo for professional technology exchanges and observation.
- ◎A veterinarian from Weihai City, Shandong visited Taipei Zoo to learn how to treat and care for Formosan Serow and Formosan Sika.
- ◎French artificial breeding expert Dr. Yann Locatelli gave a lecture at Taipei Zoo, and engaged in professional technology exchanges and observation.
- ◎A group of 3 people led by Deputy Mayor Kousalikova of Prague City, Czech Republic visited Taipei Zoo to discuss future animal exchanges and becoming sister zoos.
- ◎Russian tortoise conservation personnel from the Xinjiang Uygur Autonomous Region visited Taiwan for exchanges and observation regarding Horsfield's Tortoise (*Testudo horsfieldii*) conservation.
- ◎To further improve our caring and breeding technology for Giant Pandas, we continued to invite Mainland experts to provide guidance; Mainland experts that visited Taipei Zoo include assistant technician Chou Chiang, deputy chief Chang Kui-Chuan and deputy director Li Te-Sheng of China Conservation and Research Centre for the Giant Panda.

In 2010, the Taipei Zoo implemented 3 research projects that were examined by the city government and 5 projects that were contracted by the central government. In addition, the 2 research projects that were examined by the city government in 2009 received A ratings after their results were reported.



日本釧路動物園園長來訪



授課講師及助理

### Research and Development Projects