

3 動物保育與研究 Animal Conservation and Research



109年爬蟲館出現七彩變色龍「嬰兒潮」共孵化23顆蛋！

動物經營管理

1. 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347種2,427隻（未計算昆蟲、部分魚類及農委會收容計畫動物）。本年度內保育繁殖計畫成果，累計達39種96隻動物個體，繁殖無尾熊、二趾樹獼、棉頭絹猴、黑冠松鼠猴、褐狐猴、紅猴、狨鼠、加拿大河狸、穿山甲、大貓熊、小爪水獺、小懶猴、歐亞水獺、狐獴、雙峰駱駝、梅花鹿、伊蘭羚、弓角羚羊、東非劍羚、臺灣野山羊、南美小食蟻獸、羊駝、馬來貘、金剛猩猩、網紋長頸鹿、黑腳企鵝、黑頸天鵝、維多利亞冠鵝、灰頸冠鵝、褐林鴉、栗喉蜂虎、笑翠鳥、金背鳩、犀牛圓尾鬣蜥、馬達加斯加守宮、中國鱷蜥、太陽龜、紅腿陸龜、臺北赤蛙、火焰箭毒蛙、七彩變色龍等珍貴稀有動物。



動物園照養團隊歷經努力下，將大貓熊寶實順利返還媽媽「圓圓」身邊親自哺育



金剛猩猩「Tayari」和寶實「Jabali」曬太陽



穿山甲寶實「Dumbo」抱住媽媽「枇杷膏」的尾巴搭便車

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
109年底	93	752	100	673	118	650	25	274	11	78	347	2,427

Animal Operation and Management

1. Animal Feeding Exhibition and Breeding

The zoo features mainly vertebrata and has 347 animal species (totally 2,427 animals, excluding insects, certain fish species and the rescued animals). Regarding the wildlife conservation and breeding plan of this year, the zoo has successfully fostered 96 endangered or precious wildlife from 39 species, including koala (*Phascolarctos cinereus*), Linneaus's two-toed sloth (*Choloepus didactylus*), cotton-top tamarin, black-capped squirrel monkey (*Saimiri boliviensis*), brown lemur (*Eulemur fulvus*), red monkey (*Erythrocebus patas*), chinchilla (*Chinchilla laniger*), American beaver (*Castor canadensis*), Formosan pangolin, giant panda, Asian small-clawed otter (*Aonyx cinerea*), Lesser slow loris (*Myotis pygmaeus*), Eurasian otter, Meerkat (*Suricata suricatta*), Bactrian camel (*Camelus bactrianus*), Formosan sika deer (*Cervus nippon taiouanus*), common eland (*Taurotragus oryx*), addax, East African oryx (*Oryx beisa*), Formosan serow (*Capricornis swinhoei*), Southern tamandua (*Tamandua tetradactyla*), alpaca (*Vicugna pacos*), Malayan tapir (*Tapirus indicus*), Western gorilla, reticulated giraffe, jack-ass penguin (*Spheniscus demersus*), black-necked swan (*Cygnus melanocephalus*), Victoria crowned pigeon (*Goura victoria*), grey crowned crane (*Balearica regulorum*), brown wood owl (*Strix leptogrammica caligata*), blue-tailed bee-eater, laughing kookaburra (*Dacelo novaeguineae*), Oriental turtle-dove (*Streptopelia orientalis orii*), rhinoceros iguana (*Cyclura cornuta*), Madagascar day gecko (*Phelsuma madagascariensis*), Chinese crocodile lizard (*Shinisaurus crocodilurus*), spiny turtle (*Heosemys spinose*), red-footed tortoise (*Chelonoidis carbonaria*), Taipei grass frog, flame poison dart frog (*Ranitomeya benedicta*), and panther chameleon (*Furcifer pardalis*).



雙峰駱駝「梅煙」與新生寶實「煙子」正跟著媽媽在戶外活動場探索新環境

Statistics of Animals

Category	Mammals		Birds		Reptiles		Amphibians		Fish		Total	
	Species	Numbers	Species	Numbers	Species	Numbers	Species	Numbers	Species	Numbers	Species	Numbers
Time	93	752	100	673	118	650	25	274	11	78	347	2,427

2. 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，依計畫進行動物的健康檢查及疾病監測預防等工作，並協助處理中央農政單位查緝沒入之保育類動物、國內民眾贈入及國內外動物園間交換的動物檢疫工作，計67隻；另救傷動物140隻，包括協助中央及地方政府處理傷病穿山甲、麝香貓、鼬獾、白鼻心、石虎、食蟹獾、臺灣獼猴、大赤鼯鼠、赤腹松鼠、山羌、臺灣大蹄鼻蝠、東方白鸛、黑面琵鷺、南蛇、龜殼花、柴棺龜、斑龜及食蛇龜等動物，協助其他機構如臺北市與桃園市鳥會等治療救傷白腹鯉鳥、藍腹鵲等鳥類、小型哺乳動物，以及糙齒海豚治療。另外協助臺東縣政府執行臺灣黑熊救傷個體健檢與評估。

年內購置麻醉工作站、數位X光系統、間接檢眼鏡、氣化滅菌機、血球計數儀、尿液分析儀、麻醉藥汽化瓶、麻醉機遠端呼吸控制器、冷熱水高壓清洗機、消毒噴霧器、油壓拖板車與洗脫烘洗衣機等儀器設備，並更換檢疫中心氣密門、欄舍油壓門等。用於動物醫療手術及臨床檢驗診斷、



在眾多專業醫師的分工合作下，大貓熊「圓仔」首次健康檢查順利於2小時內完成

動物急救和住院照護等，得針對立即性及潛在性的醫療問題進行治療，並透過影像診斷及強化麻醉操作準確性，以提升動物的手術操作安全性及動物疾病診斷準確率，增加動物醫療福利，強化本園人工繁殖保育研究工作。

3. 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。本年度共計協助臺北市動物保護處及各地縣市政府圖像鑑定及開立鑑定證明書共7件9種，並持續協助各縣市政府相關單位委託處理野生動物救傷，以及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105種1,177隻；持續進行1種18隻野放動物追蹤及病原篩檢。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9個團體，共186人次，參訪與研習團體包含國內生物相關科系師生、國際學生、地方保育主管機關、林務局、環境保護人員訓練所、國際自然保育聯盟（IUCN）專家、國外動物園專家、政府動保單位和動植物防檢局等單位。

派員講授蛇類保定、動物管制人員訓練班及保育相關課程共16梯次835人次。執行動物環境改善包括靈長類、龜類及鳥類籠舍維護及豐富化共14案；執行查緝收容之兩棲爬蟲類蛇疹病毒及黴漿菌感染之流行病學、組織病理學、分子生物學、血液生化學等疾病篩檢研究，採集樣本數共64種，並完成分子生物篩檢實驗共2,692次；執行救傷醫療與協助野放共計46種128隻。於2020動物行為暨生態學研討會發表「野放食蛇龜的活動範圍及生理狀態監測」、「移地野放食蛇龜的蛇疹病毒監測」成果。並於國際學術期刊 *Transboundary and Emerging Diseases* 發表野生中華穿山甲小病毒感染研究案例。

2. Animal Health Care and Epidemic Prevention

Regarding animal medical and healthcare, the zoo not only treated animals with accidental trauma and internal diseases, but also conducted routine animal health check and disease monitoring and prevention. Moreover, our veterinarians and technicians assisted the Central Agricultural Department in treating endangered species which were illegally transported, and quarantined animals donated by civilians or exchanged between local zoos and zoos abroad (67 animals in total). Our staff at the Wildlife Rescue Center treated 140 wild animals in total. They assisted the local and federal government in caring and sheltering Formosan pangolin, small Chinese civet (*Viverricula indica pallida*), Formosan ferret-badger (*Melogale moschata subaurantiaca*), Formosan gem-faced civet (*Paguma larvata taivana*), leopard cat, crab-eating mongoose (*Herpestes urva*), Formosan Macaque (*Macaca cyclopis*), Formosan giant flying squirrel (*Petaurista philippensis grandis*), red-bellied tree squirrel (*Callosciurus erythraeus taiwanensis*), Formosan reeve's muntjac (*Muntiacus reevesi micurus*), Formosan greater horseshoe bat (*Rhinolophus formosae*), Oriental stork (*Ciconia boyciana*), black-faced spoonbill (*Platalea minor*), Oriental rat snake (*Ptyas mucosus*), point-scaled pit viper (*Protobothrops mucrosquamatus*), yellow pond turtle (*Mauremys mutica*), Chinese stripe-necked turtle (*Ocadia sinensis*), yellow-margined box turtle. Additionally, the Wildlife Rescue Center provided assistance for the wild bird societies of Taipei and Taoyuan in treating and rescuing birds and mammals such as brown booby (*Sula leucogaster*) and Swinhoe's Pheasant (*Lophura swinhoii*) and treatment of Rough-toothed dolphin (*Steno bredanensis*), as well as assisting the Taitung County Government in treating and rescuing Formosan black bears and performing their health check and assessment.

This year, the zoo purchased equipment including anesthesia workstation, digital X-ray system, indirect ophthalmoscope, steam sterilizer, cytometer, urine analyzer, anesthetic vaporization bottle, anesthesia machine remote breathing controller, hot and cold water pressure washer, disinfection sprayer, hand pallet truck and washing

machine, as well as replaced airtight doors of quarantine center and oil pressure doors of fences for animal surgery, clinical diagnosis, animal rescue and hospital care. These equipment allow the zoo to immediately treat potential medical problems, and to increase the accuracy of image diagnosis and anesthesia operation in order to improve the safety of operations and disease diagnosis. The purchased equipment also enhance animal welfare and efficacy of artificial breeding for conservation research projects at the zoo.

3. Protected Wildlife Rescue

The zoo's Wildlife Rescue Center (WRC) is dedicated to shelter smuggled and illegally hunted, sold and exhibited endangered species that are seized by the Department of Wildlife Conservation. This year, the zoo assisted Taipei City Animal Protection Office and any county/city governments with 7 cases from 9 species of image identification and issued identification reports for each case within each species, aided county / city governments in wildlife rescue, and continued to care for animals taken in for shelter over the years. Including bears, big cats, birds (parrot), primates, amphibians and reptiles, with a total of 105 species consisting 1,177 individuals. Moreover, the WRC continued to track and conduct pathogen screening for 18 rehabilitated wild animals of 1 species. Additionally, the zoo provides workshops regarding skills for sheltering wildlife and educational tour services. This past year, the zoo provided such training and educational tours to 186 people of 9 groups. The workshop opened for teachers, students and researchers in the biology or relevant department in Taiwan, foreign students, local conservation institutes, Forest Bureau, Environmental protection personnel training institute, experts from the International Union for Conservation of Nature (IUCN), experts from zoos abroad, governmental animal protection institute and Bureau of Animal and Plant Health Inspection and Quarantine.

The educational staff of the zoo were appointed to teach 16 sessions of courses regarding snake restraint, animal control staff training courses and conservation-related courses to 835 participants, which allowed the zoo



臺北市立動物園3月9日收台台北市野鳥學會送來一隻受傷的白腹鯉鳥雌鳥

受傷的白腹鯉鳥雌鳥，接受獸醫師檢傷、照X光及抽血等理學檢查

白腹鯉鳥毫不猶豫，衝出運送紙箱、振翅飛向大海

救傷的白腹鯉鳥經過一個多月的治療照養，已經恢復健康，並進行野放

4. 動物引進及交換

為更新動物血緣與豐富教育展示效益，持續與國內外重要動物園或照養機構進行動物繁殖合作、交換或互贈；除直接與個別重點動物園的動物交流合作外，持續推動參與全球瀕危物種保育組織及計畫，以提升對於野生動物保育之貢獻度。另國際交流的突破，也開啟未來加入格利威斑馬、侏儒河馬、蒙古野馬及指猴等保育合作計畫的可行性。

本年度引進鳥類3種6隻、哺乳類8種30隻、爬蟲類1種4隻、兩棲1種5隻，共計引入13種45隻，並續與新加坡動物園、荷蘭猴山動物園、捷克布拉格動物園、澳洲庫倫賓動物園、奧地利龜島保育中心及日本上野動物園、日本天王寺動物園等洽談動物交流中，重要成果如下：

- 自日本天王寺動物園借殖入：國王企鵝一對。
- 新加坡動物園贈入：小爪水獺1雄。



臺北市立動物園向日本天王寺動物園借殖的1對國王企鵝（右公、左母）



樹懶葉旋出發前往新加坡



特生中心入園石虎健檢（上公石虎小魚、下母石虎飛飛）

- 新加坡動物園交換出：雙冠鬚蜥4隻、射紋陸龜1雌、食蛇龜1雌、緬甸星龜2雄、中國鱷蜥1對。
- 新加坡動物園贈出：二趾樹獼1雌。
- 自特有生物研究保育中心借殖入：石虎1雄3雌。
- 自臺北市動保處查緝沒入/救傷收容入：小爪水獺2雄1雌、普通獾6雄6雌、巴里島白棕鳥1雄2雌、灰腹綠錦蛇1隻、北美浣熊3雌1雄、草原巨蜥1隻、穿山甲1雄。
- 自民間收容入：馬來熊2雌、葵花鳳頭鸚鵡1雄、黑手長臂猿1雌。
- 購入：金曼蛙5隻、紅眼鷹蜥4隻。
- 高雄壽山動物園借殖出：北美浣熊1雄。
- 六福村主題遊樂園交換出：黑天鵝3雄7雌、迷你馬2雄。
- 清華大學贈出：鈷藍箭毒蛙10隻、迷彩箭毒蛙5隻。

to implement 14 projects to improve the living conditions of its animals. Including maintenance and enrichment of primates, turtles and bird cages. Staff also conducted research on epidemiology, histology, molecular biology and blood biochemistry of herpes virus and mycoplasma infection found in sheltered amphibians and reptiles. There were 64 samples collected totally, which were used to complete 2,692 times of molecular biological screening experiments. Furthermore, the staff helped to rescue, treat, and rehabilitate 46 species of wildlife consisting 128 individuals. At the Congress of Animal Behavior and Ecology in 2020, the results of "Monitoring the range of activities and physiological status of released yellow-margined box turtles in the wild" and "Monitoring of herpes virus in ex situ released yellow-margined box turtles in the wild" were published. A case study of wild Formosan pangolin infected with parvovirus was also published in the international academic journal "Transboundary and Emerging Diseases".

4. Introduction and Exchange of Animals

To maintain captive wildlife genetic diversity and enriching educational exhibitions, the zoo continued to cooperate with important domestic and foreign zoos or animal institutions to breed or exchange animals. Apart from directly cooperating and exchanging with important zoos, the zoo continued to promote and participate in global endangered species conservation plans. On the other hand, another breakthrough in international cooperation opened up the feasibility in conservation of Grévy's zebra (*Equus grevyi*), Pygmy hippopotamus (*Choeropsis liberiensis*), Przewalski's horse (*Equus ferus przewalskii*) and Aye-aye (*Daubentonia madagascariensis*).

The zoo introduced 6 birds of 3 species, 30 mammals of 8 species, 4 reptiles of 1 species and 5 amphibians of 1 species, totally introduced 45 animals of 13 species this year; and continuously negotiate with Singapore Zoo (Singapore), Apenheul Primate Park (the Netherlands), Prague Zoological Garden (Czech Republic), Currumbin Wildlife Sanctuary (Australia), Turtle Island, Graz (Austria), Ueno Zoo (Japan) and Osaka Tennoji Zoo (Japan) for animal exchanges. The important results are as follows:

- Breeding loan from Osaka Tennoji Zoo (Japan): 1 pair of king penguins (*Aptenodytes patagonicus*).
- Donating from Singapore Zoo: 1 male of Asian small-clawed otter.
- Giving to Singapore Zoo by exchange: 4 double-crested basilisks (*Basiliscus plumifrons*), 1 female of radiated tortoise (*Astrochelys radiata*), 1 female of yellow-margined box turtle, 2 males of Burmese star tortoises (*Geochelone platynota*), and 1 pair of Chinese crocodile lizards.
- Donating to Singapore Zoo: 1 female of Linnaeus's two-toed sloth.
- Breeding loan from the Endemic Species Research Institute: 1 male and 3 females of leopard cat.
- Confiscating by investigation and seizing/sheltering by rescue and treatment from Taipei City Animal Protection Office: 2 males and 1 female of Asian small-clawed otters, 6 males and 6 females of common marmoset (*Callithrix jacchus*), 1 male and 2 females of Bali starlings (*Leucopsar rothschildi*), 1 gray-belly green rat snake (*Gonyosoma frenatum*), 1 male and 3 females of raccoon (*Procyon lotor*), 1 savannah monitor (*Varanus exanthematicus*), and 1 male of Formosan pangolin.
- Sheltering from the private: 2 females of Malayan sun bears (*Helarctos malayanus*), 1 male of yellow-crested cockatoo (*Cacatua sulphurea*), 1 female of agile gibbon (*Hylabates agilis*).
- Purchasing: 5 golden mantellas (*Mantella aurantiaca*), 4 redeye crocodile skinks (*Tribolonotus gracilis*).
- Breeding loan to Kaohsiung City Shoushan Zoo: 1 male of raccoon.
- Giving to Leofoo Village Theme Park by exchange: 3 males and 7 females of black swan (*Cygnus atratus*), and 2 males of pony (*Equus caballus*).
- Donating to National Tsing Hua University: 10 blue poison dart frogs (*Dendrobates tinctorius azureus*), and 5 black-and-green poison-dart frogs (*Dendrobates auratus*).

5. 本土野生動物域內外保育合作

■ 歐亞水獺保育

本園自103年執行新階段的歐亞水獺域內外保育整合行動，協助金門縣政府照養當年收容的三隻歐亞水獺幼獸，並藉由展示金門歐亞水獺的契機向民眾宣導本土野生動物的保育觀念。本年度域外保育部分本園除持續進行金門歐亞水獺圈養收容個體的照養展示、教育推廣外，亦進行保育繁殖配對，成功繁殖一雌性幼獸。截至本年底本園共圈養6隻歐亞水獺，分別由臺灣區及保育區負責照養。

在域內保育部分，本年度本園保育研究中心研究團隊接受金門國家公園管理處委託，執行「金門歐亞水獺親緣譜系及族群動態研究」三年計畫第一年研究調查工作。本年度共執行5次野外調查及樣本採集，收集500份歐亞水獺排遺樣本進行微衛星個體鑑識分析，並成功追蹤到86隻個體。此外，研究團隊充分運用辛苦收集的排遺DNA樣本

進行金門水獺食性研究，增加對於野外歐亞水獺族群生態的瞭解。初步研究成果以海報方式發表於第28屆東南亞動物園暨水族館協會(SEAZA)年會線上會議。

在推廣教育面，106年起本園於水獺研究及保育教育工作上致力多角化經營。包含水獺保育教育增能課程、在地國小到校推廣課程、金門水獺保育教育嘉年華活動、與金門大學及國家公園合辦工作坊及課程、國際研討會納入歐亞水獺保育議題、金門城隍廟響應水獺保育行動加入水獺「神獸護城隍」的角色設定、歐亞水獺保母講古線上課程、配合世界水獺日為本園救傷歐亞水獺寶寶辦理徵名活動等多元推廣工作。

本年度更積極對外開拓合作推廣管道，本園除與金門縣政府合作教育推廣活動外，也共同開發「浯優與浯綠的憂慮」風獅爺與水獺活動主題APP，藉著兩隻小水獺想回金門省親的故事發想，傳達金門生物多樣性、水獺生存危機及保育行動方略。



每年五月最後一週禮拜三為「世界水獺日」



「金沙」的新生寶寶，由保育員共同取名為「莎夏」



救傷水獺妹妹－「金萌」

5. Cooperation in the in-situ and ex-situ conservation of native wildlife

■ Eurasian otter conservation

Since 2014, the zoo has performed in-situ and ex-situ conservation and integration action of the European otters in a new stage. It has assisted the Kinmen County Government to care for three Eurasian otter cubs that were housed in the year, and used the opportunity of exhibiting the Eurasian otters to promote the conservation concept of native wildlife to the public. Regarding this year's ex situ conservation, the zoo not only continued performing the care display and education promotion of Eurasian otter captive individuals in Kinmen, but also conducted conservation and breeding pairings, and successfully bred a female cub. As of the end of this year, there are 6 Eurasian otters in captivity in the zoo, which are taken care of by the Formosan Area and the Conservation Area.



臺北市立動物園積極投入金門歐亞水獺的各項保育工作



調查人員定期到金門水獺出沒的地點，撿取新鮮的水獺排遺樣本 (張廖年鴻 / 攝)

In the in-situ conservation, the research team of the Conservation Research Center of the zoo was commissioned by the Kinmen National Park Headquarters to perform the first year of the research and investigation of the "Study on the Population Dynamics and Genealogy of Eurasian Otters in Kinmen" three-year project in this year. A total of 5 field surveys and sample collections were carried out this year. Five hundred samples of Eurasian otter spraints were collected for microsatellite analysis, and 86 individuals were successfully identified and tracked. In addition, the research team made full use of the hard-collected spraints DNA samples to study the feeding habits of the Kinmen otter to increase its understanding of the ecology of the wild Eurasian otter population. The preliminary research results were published as posters at the online meeting of the 28th South East Asian Zoos and Aquariums Association (SEAZA) annual conference.

Regarding to education promotion, the zoo has been committed to diversified operations in otter research and conservation education since 2017. The diversified promotion includes the otter conservation and education enhancement courses, local elementary school promotion courses, Kinmen otter conservation and education carnival, joint workshops and courses with National Quemoy University and Kinmen National Park, International conference featuring Eurasian otter conservation collaborating with the Kinmen Cheng Huang God Temple, "Mythical Beast Guarding God" a play relating conservation action, the Eurasian otter keeper's legendary tales online courses, and a naming activity for Eurasian otter babies in the zoo on World Otter Day.

We developed external cooperation and promotion channels more actively in this year. In addition to cooperating with the Kinmen county government in education and promotion activities, the zoo also jointly developed the "The Worries of Wuyou and Wulu" theme app for the Wind Lion God and Otter activities. The biodiversity of Kinmen, the survival crisis of otters and the conservation strategy was conveyed through the story of two little otters returning to Kinmen to visit relatives.

■ 臺北赤蛙保育

為復育臺北赤蛙野生族群，本園於103年啟動臺北赤蛙圈養繁殖計畫，在臺北市政府支持下，於動物園內設立肩負保育繁殖的獨立飼養室。104年並與新北市政府農業局共同推動「雙北合作-臺北赤蛙復育與棲地營造」計畫，透過本園多年的累積經驗，105年克服繁殖與照護的困難，成功建立穩定的域外安全族群。109年4月25日「拯救世界瀕危青蛙日Save The Frogs Day」這天，將圈養繁殖的臺北赤蛙個體，在新北市政府農業局與農民合作的生態友善農地，進行先期野放試驗，期望能重建臺北赤蛙野生族群。



期盼這群珍貴可愛的臺北赤蛙們，能夠憑一己之力，在自然環境內順利繁衍下一代



左圖：即將出發重返野外棲地的臺北赤蛙們
右圖：臺北市立動物園劉世芬園長親自參與臺北赤蛙野放



臺北市立動物園首次將圈養繁殖的本土物種野放回歸山林，野放過程十分順利

■ Conservation of Taipei grass frog

In order to restoration of the wild population of Taipei grass frog, the zoo launched the Taipei grass frog captive breeding plan in 2014. Under the support of the Taipei city government, an independent breeding room for conservation and breeding was set up in the zoo. The zoo also jointly promoted the "Taipei City and New Taipei City Cooperation-Taipei grass frog Restoration and Its Habitat Creation" project with the Agriculture Department of the New Taipei City Government in 2015. Through the accumulated experience of the zoo for many years, the zoo overcame the difficulties of reproduction and care, and successfully established a stable and safe ex-situ population in 2016. On April 25, 2020, "Save The Frogs Day", The captive-bred Taipei grass frog individuals were subjected to a preliminary release experiment on an ecologically friendly farmland in cooperation with the Agriculture Department of the New Taipei City Government and farmers, hoping to rebuild the wild population of Taipei grass frogs.



響應「拯救世界瀕危青蛙日」 臺北赤蛙重返野外棲息地



臺北赤蛙的卵



臺北赤蛙交配

■ 食蛇龜保育

本園執行林務局長年委辦之野生動物救傷及收容計畫，接收由各地海關、保育警察及縣市政府單位查獲之大量食蛇龜走私個體。於106年開始執行野放計畫，針對健康狀況良好、明顯已達性成熟之個體，檢測爬蟲類常見疾病如蛇疹病毒、黴漿菌、阿米巴原蟲等，結合體重與龜類身體狀況指數 (Body Contion Index, BCI) 作為健康狀況與能否野放之標準。建立流程後進行異地野放，並持續進行無線電追蹤試驗，已累計野放個體超過155隻，其中30隻個體裝設發報器，蒐集為期兩年活動模式及野放後適應狀況、存活率等研究調查。107年野放後一年的留置率為41.7%。野放個體活動範圍依個體或公母而異，年活動範圍從1.4至15.7公頃不等。未來將累積野放個體之三年以上長期監測資料，以期瞭解野放後個體之存活率與生態訊息。



期望透過食蛇龜的野放追蹤監測，減少食蛇龜族群下降的壓力
圖中為追蹤到的個體，背甲上圓形物即為無線電發報器



每一隻追蹤個體都是我們聽著無線電接收器收到的訊號，靠著雙腳跋山涉水找出來的

■ Conservation of yellow-margined box turtle

The zoo implemented the wildlife rescue and shelter project long-term commissioned by the Forestry Bureau, and received a large number of smuggled yellow-margined turtles seized by local customs, conservation polices and county/city government units. The wild release project was implemented in 2017 to detect common reptile diseases such as herpes virus, mycoplasma, amoeba for individuals with good health and apparently reaching sexual maturity, combining body weight with the Body Condition Index (BCI) of turtles as a criterion for health status and whether it can be released into the wild. After the establishment of the process, the ex-situ release in the wild was carried out, and the radio tracking experiment was continued. More than 155 wild individuals have been released, and 30 of which have been equipped with transmitters to collect research and investigations on activity patterns, adaptation conditions and survival rates after wild release for a period of two years. The retention rate for one year after release in 2018 was 41.7%. The range of activities of wild individuals varies according to individuals or males and females, with an annual range of activities from 1.4 to 15.7 hectares. In the future, we will accumulate long-term monitoring data of wild individuals for more than three years, in order to understand the survival rate and ecological information of the individuals after release.



將食蛇龜安裝無線電發報器，準備回歸野外

6. 與學術界建教合作及推廣教育

在動物診療技術方面，持續與臺灣大學等獸醫學院（系所）保持密切建教合作關係，對死亡動物的病因建立完整檔案，以強化臨床醫療、疾病診斷與病理學上的交流及連結，提升動物醫療品質。年內邀請多位學者專家來園指導：中興大學獸醫專業學院系陳冠升副教授演講「非犬貓動物胸腔影像判讀」、王咸祺副教授演講「動物麻醉急症處理」，以及臺灣大學獸醫專業學院黃威翔助理教授演講「動物法醫學理論與實務」等專題。除與獸醫界的合作外，亦透過與人醫及牙醫的專業交流與合作，加速提升野生動物的診療技術。

與其他相關機構建教合作及教育推廣，提供國內其他單位野生動物獸醫師與國內外獸醫系大學生前來實習，包括：國內部分寒假實習生4名、暑期實習生共8名、在學期間實習生共7名，以及3位進行連續4個月實習課程學生；國外部分1月澳洲獸醫實習生1名與9月美國獸醫實習生1名。另8、9月

協助農業科技研究院辦理動物管制人員訓練進階班課程，共計2梯次70位學員結訓。

本園各組室提供7至8月國內實習生在野生動物醫療、生物學、生態學等觀摩學習。另新北市立石碇高中特教班學生1名於109年3-6月來園進行環境清潔維護及園藝維護實習。



109年實習學生感謝狀

6. Academic Cooperation and Educational Outreach

Regarding to animal medical care, the zoo has maintained a close relationship with School of Veterinary Medicine of National Taiwan University and established complete profiles of the pathology examination of each dead animal to strengthen the communication and connection of clinical medicine, disease diagnosis and pathology, thereby improving the quality of animal medical treatment. We invited scholars and experts this year, including Chen, Kuan-Sheng, associate Professor of the School of Veterinary Medicine of National Chung Hsing University, lectured on "Interpretation of Chest Radiology of exotic animals", Wang, Hsien-Chi, associate Professor of the School of Veterinary Medicine of National Chung Hsing University, lectured on "Emergency Management under Anesthesia", and Huang, Wei-Hsiang, assistant Professor of the School of Veterinary Medicine at the National Taiwan University, lectured on "Veterinary forensic theory and practice". In addition to the close network with various Veterinary Medicine associations, we also collaborated with Human doctors and dentists, facilitating and enhancing diagnostic techniques for wildlife.

The zoo also cooperated with other related educational institutions teaching cooperation



臺灣藍鵲為一夫一妻制
(詹德川 / 攝)

to provide wildlife veterinarians from national and international veterinary college students for internships and exchange of experiences in teaching and learning, including: Locally, there were 4 interns during winter vacation, 8 summer interns, and 7 interns during the semester, and 3 students who have undergone 4 consecutive months of internship and internationally, 1 Australian veterinary intern in January and 1 American veterinary intern in September. In addition, the zoo assisted the Agricultural Science and Technology Research Institute to hold the advanced training for animal control personnel courses in August and September. There were 2 sessions with 70 participants completed the courses.

Interns from July to August in each office of the zoo, providing students with observation and learning of wildlife medicine, biology, ecology. In addition, one student from the special education class of New Taipei Municipal Shiding High School came to the zoo from March to June in 2020 for environmental cleaning and maintenance as well as gardening maintenance practice.



黑冠松鼠猴 (詹德川 / 攝)



從德國來的神秘雲豹「Suki」 (林惠珍 / 攝)



棉頭絹猴多了一對剛出生的小寶寶，讓溫馨的小家庭更顯熱鬧

7. 辦理專業工作坊、研討會

- 辦理「2020臺灣動物園暨水族館營養工作坊」：工作坊內容包括專題演講、營養配方調整實務分享及動物體態評分工作坊，邀請臺灣大學動物科學系徐濟泰教授及本園營養師3名，共同前往六福村野生動物園及壽山動物園辦理，透過課程及現場實作、指導體態評分，當面交流實際動物照養經驗並持續傳承新進夥伴正確營養概念，成效良好。與會成員包含臺灣動物園暨水族館協會會員及國內動物園暨水族館業相關人員等，總計8個演講、2個體態評分工作坊、計120人參加，共同研議野生動物食譜，俾利提升動物健康及動物福祉。
- 辦理大紫蛺蝶保育策略與行動工作坊：大紫蛺蝶臺灣亞種是我國「瀕臨絕種保育類野生動物」，為避免大紫蛺蝶臺灣亞種的族群持續惡化降低其滅絕風險，農委會林務局、農委會特有生物研究保育中心、臺灣昆蟲學會與本園共同於2020年9月25至26日舉辦「大紫蛺蝶保育策略與行動工作坊」，計有來自16個單位的42位公、私部門利害關係人依照國際自然及自然資源保育聯盟物種存續委員會保育規劃專家群的保育規劃流程參與討論；本報告記錄工作坊的流程、與會者達成共識的願景、大紫蛺蝶面臨威脅的分析、兩個工

作小組的討論過程與內容，最後提出9項大紫蛺蝶保育行動方案，並票選出「大紫蛺蝶保育/復育整合研究計畫」、「避免朴樹周邊落葉層破壞」，以及「與熱點周邊部落、社區、學校推廣大紫蛺蝶相關知識及保育觀念」等最優先的行動。工作坊也建議組成執行小組，協助、協調各行動方案主導者與合作夥伴落實大紫蛺蝶的保育行動。

- 於本園、新竹動物園及野柳海洋公園舉辦109年度人道運輸講習，三場次共計107位參加講習、90名考取運輸人員證照。
- 協助農業科技研究院辦理「動物管制人員訓練進階班」課程共2梯次，總計70人結訓。
- 協助辦理台灣特殊寵物暨野生動物醫學會研討會課程。



工作坊小組討論與分享活動



大紫蛺蝶保育策略與行動工作坊圓滿落幕

7. Hold the Professional Workshop and Symposium

- Holding the "2020 Taiwan Zoo and Aquarium Nutrition Workshop": The content of the workshop included lectures, practical sharing of nutritional formula adjustments, and animal body scoring workshop. Hsu, Jih-Tay, Professor from the Department of Animal Science and Technology, National Taiwan University and 3 dietitians from the zoo were invited to go to the Lefoo Village Theme Park and Shoushan Zoo to hold the workshop through courses and on-site practice, guiding body scoring, face-to-face exchange of actual animal care experiences, and continuing to pass on the correct nutritional concept of new partners. The results of the workshop were remarkable. Participants included members of the Taiwan Zoos and Aquaria Association and related personnel from the domestic zoos and aquaria industry. There were a total of 8 lectures and 2 body scoring workshops, and 120 people participated. They discussed wildlife recipes and benefited to improve animal health and animal wellbeing.
- Holding the Great Purple Emperor Butterfly Conservation Strategy and Action Workshop: Taiwan great purple emperor butterfly (*Sasakia charonda formosana*) is an "endangered species" in our country. In order to prevent the population of great purple emperor butterfly from continuing to deteriorate and reduce the risk of its extinction, the Forestry Bureau of the Council of Agriculture, the Endemic Species Research Institute of the Council of Agriculture, Taiwan Entomological Society, and the Taipei Zoo jointly hold the "Great Purple Emperor Butterfly Conservation Strategy and Action Workshop" from September 25 to 26, 2020. There were 42 interest parties in the public and private

sectors from 16 units. They participated in the discussion in accordance with the conservation planning process of the Conservation Planning Specialist Group of the International Union for Conservation of Nature and Natural Resources Species Survival Commission. The report records the process of the workshop, the consensus vision reached by the participants, the analysis of the threats faced by the great purple emperor butterflies, and the discussion process and content of the two working groups. 9 great purple emperor butterfly conservation action projects were finally put forward, and Actions such as "Conservation/Restoration Integrated Research Plan of the Great Purple Emperor Butterfly", "Avoiding the Destruction of the Deciduous Layer Around the Hackberry", and "Promoting Knowledge and Conservation Concepts of the Great Purple Emperor Butterfly with the Surrounding Tribes, Communities, and Schools" were voted for the top priority. An implementation team was also suggested to form in the workshop to assist and coordinate various action plan leaders and partners to implement the conservation actions of the great purple emperor butterflies.

- The 2020 humane transportation seminar was held in the zoo, Hsinchu Zoo and Yehliu Ocean Park. There were three sessions with a total of 107 participants, and 90 participants obtained the certificate of transportation personnel.
- Assisting the Agricultural Technology Research Institute in conducting 2 courses of "advanced training for animal control personnel", with a total of 70 people completing the training.
- Assisting in holding seminar courses of the Taiwan Exotic and Zoo Veterinary Association (TEZVA)

國際合作與交流

本園於民國75年遷園前後所擴充的大批人力，近年已陸續面臨退休、世代更替的時刻，在此關鍵年代，本園在國際交流與專業精進上，積極培植園內新一代的核心人力，並集中較多資源投注於保育重要性較高的物種，期能更深入接軌國際專業、參與全球及在地物種保育工作，深化保育貢獻及影響力。

因空間資源有限，單一動物園的獨立運作，無法有效維持族群基因多樣性並避免近親繁殖，且在符合動物福利之前提下，多數物種無法典藏大量的族群。因此，動物園間連結組成協會，透過彼此合作進行族群管理，維持域外族群具有健康的基因多樣性與年齡結構，即為動物園（水族館）的域外族群管理和域內再引入保育工作的重要基礎。

本園為東南亞動物園暨水族館協會（SEAZA）正式成員，更參與多數物種族群管理計畫。2020年因應疫情改採線上舉辦年會，於緬甸時間11月16至19日辦理研討會，本園共4人進行口頭發表，在為期4天的線上會議，本園共有104人次與會。另本園於2018年成為歐洲動物園暨水族館協會（EAZA）會員，並參與多數物種族群管理計畫，「2020歐洲動物園暨水族館協會年會」因應疫情改採線上舉辦，於臺灣時間9月29日至10月2日舉行，除6人指派全程參與外，其餘18人參加不同主題講座討論。參與議程包含新冠肺炎疫情下動物園的管理、跨物種整合保育、動物福利、野生動物營養、研究、族群管理等，瞭解最新近況及知識，發展專業。



EAZA線上年會，園內同仁不受地理限制一同參與

第75屆世界動物園暨水族館協會（WAZA）年會於2020年10月12日至15日，因應疫情採線上舉辦，WAZA年會為每年各大動物園代表齊聚一堂檢視過去、商討未來的重要會議，討論議題多作為本園重要發展方向參考。本園由園長等3人參與，議程包含新冠肺炎疫情下動物園未來、翻轉瀕危動物保育現況Reverse the Red、2020-2030永續策略、保育教育策略等，該等文件將翻譯成中文版本作為未來執行參考以跟上國際潮流。

推廣教育方面，國際動物園教育者協會（IZE）為提升全球野生動物保育教育，每2年於各大洲輪流舉辦雙年會議，以促進全球動物園暨水族館教育者交流與分享學習推動新知。第25屆國際動物園教育者協會雙年會以「促進保育行動」為題，邀集世界動物園教育者提出案例經驗分享，徵稿內容包含複合影響力之方案、訴求實證、發展動物同理心、領導機構改變、夥伴關係、理論與實踐及保育倡議等重要教育行動面向。因新冠肺炎疫情全球肆虐，原規劃於美國聖地牙哥動物園舉辦，後改線上會議，每日24小時全球同步不間斷方式辦理。為使會議期間讓更多本園同仁參與，另以投影方式開放多位同仁觀摩學習，共16人參與會議。

International Cooperation and Exchanges

The group of people whom the zoo hired in 1986 when moving to the current address are successively retired in recent years. In this moment, the zoo therefore trained some key figures in the new generation to enhance international exchange and become even more professional. The zoo also invests more resources in species that are relatively more important with an expectation of connecting to the world, participating in global and local species conservation works, making more contributions in animal conservation and protection, and becoming even more influential.

With the limited space, an independent zoo cannot effectively maintain the diversity of the group genes and avoid inbreeding. In the premise of animal welfare, a zoo cannot keep many of the same species. Therefore, zoos build up a network and associations. Through the collaboration to maintain the group, keeping the ex-situ conservation with health gene diversity and age structure. This is the significant foundation for the ex-situ conservation and in-situ re-introduction conservation.

The zoo is a full member of the South East Asian Zoos and Aquariums Association (SEAZA) and participates in many species population management programs. In 2020, in response to the epidemic, the annual meeting was held online. The seminar was held from November 16 to 19, Myanmar time. A total of 4 people in the zoo gave oral presentations. During the 4-day online meeting, a total of 104 people in the zoo attended the meeting. In addition, the zoo became a member of the European Association of Zoos and Aquaria (EAZA) in 2018, and participated in many species population management programs. The "2020 European Association of Zoos and Aquaria Annual Meeting" was held online in response to the epidemic from September 29 to October 2, Taiwan time. Except for 6 people assigned to participate in the whole process, the other 18 people participated in lectures and discussions on different topics. They participated agenda included zoo management under the COVID-19 epidemic, cross-species integrated conservation, animal welfare, wildlife nutrition, research, population

management, to understand the latest developments and knowledge, and developed profession.

The 75th World Association of Zoos and Aquariums (WAZA) Annual Conference was held from October 12 to 15, 2020. In response to the epidemic, the meeting was held virtually. WAZA Annual Conference is an important meeting where representatives from major zoos gather to review the past and discuss the future. Discussion topics are mostly used as a reference for the important development direction of the zoo. Three people including the director of the zoo attended. The agenda included the future of the zoo under the COVID-19 epidemic, reverse the conservation status of endangered animals (Reverse the Red), 2020-2030 sustainability strategies, conservation education strategies, etc. These documents will be translated into Chinese version for future implementation reference to keep up with the international trend.

Regarding to education promotion, in order to improve global wildlife conservation education, IZE biennial conferences take places on different continent to promote Zoos and Aquariums educators' around the world exchanging and sharing experience. The 25th International Zoo Educators' Biennial Conference was titled "Driving Conservation Actions", and world zoo educators were invited to share cases and experiences. The content of the call for contributions included important educational actions such as creating programs with multiple impacts, pursuing evidence of impact, developing empathy and awe, educators leading organizational change, partnership and community collaboration, from theory to practice, The IZE conference was originally scheduled in San Diego Zoo in the US. Due to the COVID-19 epidemic, it was changed to a nonstop 24 hours online meeting, In order to allow more colleagues in the zoo to participate during the conference, we set up a hall room with projector which allows more colleagues to attend the meeting with social distance, and a total of 16 people were participated in the conference.

1. 參加國際性會議

月份	會議名稱	參與人數
9	線上參加「2020歐洲動物園暨水族館協會年會」	24
10	線上參加「國際動物園教育者協會第二十五屆雙年會－促進保育行動」	16
10	線上參加「2020世界動物園暨水族館協會年會」	3
10	線上參加「2020ASCM亞洲保育醫學會」	19
11	線上參加「2020 東南亞動物園暨水族館協會年會」	104



2020台灣動物園暨水族館營養工作坊



透過專題分享探討野生動物營養議題

2. 辦理國際會議及專業研討會

■ 第13屆環太平洋白蟻研究學群國際會議

與國立中興大學昆蟲系、臺灣昆蟲學會、中西化學公司共同合辦「第13屆環太平洋白蟻研究學群國際會議」，本會議於2月12至13日舉行，共有來自日本、臺灣、印尼、泰國、新加坡、馬來西亞、菲律賓、澳洲、法國、美國等國共128人參與，共同分享白蟻生物生理學、防治應用技術等學術研究與經驗交流。共計有紀念講座4場、口頭發表27篇、海報發表19篇和1場論壇。



感謝牌－感謝協助辦理第13屆環太平洋白蟻研究學群研討會



白蟻國際研討會

1. Participation in International Conferences

Month	Conference Name	No. of Participants
9	Participation in 2020 EAZA annual meeting (virtual meeting)	24
10	Participation in the 25 th International Zoo Educators' Biennial Conference (IZE)-Driving Promoting Conservation Actions (virtual meeting)	16
10	Participation in 2020 WAZA annual meeting (virtual meeting)	3
10	Participation in ASCM 2020 annual meeting (virtual meeting)	19
11	Participation in 2020 SEAZA annual meeting (virtual meeting)	104



2020「國際動物園教育者協會第25屆雙年會（線上會議）」



2. Holding of International Conferences and Professional Seminars

■ 13th International Conference of the Pacific Rim Termite Research Group (PRTRG)

The zoo jointly organized the "13th International Conference of the Pacific Rim Termite Research Group" with the Department of Entomology of National Chung Hsing University, Taiwan Entomological Society, and Chung Hsi Chemical Plant, Ltd. The conference was held from February 12 to 13, with a total of 128 people from Japan, Taiwan, Indonesia, Thailand, Singapore, Malaysia, the Philippines, Australia, France, the United States and other countries participating to share academic research and experience exchanges on termite biophysiology and application technology for prevention and control. There are 4 commemorative lectures, 27 oral presentations, 19 posters and 1 forum.



白蟻國際研討會

■ 台灣特殊寵物暨野生動物醫學會研討會

台灣特殊寵物暨野生動物醫學會研討會於1月12日舉行，邀請在爬蟲專業領域有豐富經驗的講師，分享爬蟲常見疾病與醫療，以及臺灣與國際爬蟲保育現況。與會成員以臺灣野生動物及特殊寵物相關專科醫生為主，以及各大獸醫學院學生、研究生，議程包括爬蟲類保定與臨床處理，國內爬蟲保育醫學現況，常見疾病與醫療處理，課程豐富，討論熱絡，成果卓越。



協辦「2020台灣特殊寵物暨野生動物研討會」

3. 其他專業交流

- 常盤動物園協會事務局長等4人來訪。
- 六福集團公關處資深經理等4人來訪。
- 遠雄海洋公園海洋部張永明副理、蔡東宏襄理、盧思珩副科長來訪討論水獺事宜。
- 三立影城張維銘執行董事來訪。
- 日本臺灣交流協會松原一樹部長等3人來訪。
- 新光銀行文教基金會湯傑郎副執行長、新光金控陳正輝資深協理及新光人壽林慧資深協理來訪。

- 日本橫濱八景島水族館藤井董事長等4人來訪。
- 捷克首都布拉格市賀吉普 (Zdenek Hrib) 市長及議會代表團，會同布拉格市國際關係暨禮賓處胡拉維 (Martin Churavy) 處長蒞臨本園。
- 六福集團梁原逞總監率隊來訪請教有關犀牛輸出事宜。
- 台電調度中心林震邦主任等3人來訪。
- 日本臺灣交流協會村嶋郁代部長等3人來訪。
- 新竹動物園一行5人來訪討論紅毛猩猩調度事宜。



捷克媒體訪問布拉格市賀吉普市長



貴賓大合照

■ Taiwan Exotic and Zoo Veterinary Association (TEZVA) Seminar

The Taiwan Exotic and Zoo Veterinary Association (TEZVA) Seminar was held on January 12, inviting lecturers with rich experiences in the field of reptiles to share common diseases and medical treatment of reptiles as well as the current status of reptile conservation in Taiwan and international. Participants are primarily wildlife and exotic pet-related specialists of Taiwan, as well as students and graduate students from veterinary schools. The agenda included reptile restraint and clinical treatment, the current status of reptile conservation medicine in Taiwan, and common diseases and the medical treatment. The courses are with variability and enthusiastic discussions to achieve outstanding results.



2020台灣特殊寵物暨野生動物研討會

3. Other Professional Exchanges

- 4 people including the Director of Association Affairs of Tokiwa Zoo came to visit.
- 4 people including the Senior Manager of Public Relations Office of LeoFoo Group came to visit.
- Chang, Yung-Ming, Deputy Manager, Tsai, Tung-Hung, Assistant General Manager, Lu, Sih-Heng, Deputy Chief from the Ocean Department of Farglory Ocean Park came to visit and discuss otter matters.
- Chang, Wei-Ming, Executive Director of SET Studio and Cinema came to visit.
- 3 people including Kazuki Matsubara, Minister of the Japan-Taiwan Exchange Association came to visit.
- Tang, Chieh-Lang, Deputy Executive Manager of Shin Kong Bank Cultural and Educational Foundation, Chen, Cheng-Hui, Senior Director of Shin Kong Financial Holding, and Lin, Hui, Senior Director of Shin Kong Life came to visit.
- 4 people including Fujii, Chairperson of Yokohama Hakkeijima Sea Paradise in Japan came to visit.

- Zdenek Hrib, Mayor of Prague (the capital of the Czech Republic) and a parliamentary delegation, together with Martin Churavy, Director of the Prague International Relations and Protocol Division visited the zoo.
- Liang, Yuan-Cheng, Director of Leofoo Group led a team to visit and ask about rhino export matters.
- 3 people including Lin, Chen-Pang, Director of the Taipower Dispatching Center came to visit.
- 3 people including Ikura Murajima, Minister of Japan-Taiwan Exchange Association came to visit.
- A group of 5 people from Hsinchu Zoo came to visit and discuss the scheduling of orangutans transfer.
- Livestock Research Institute and Economic Affairs Department, Kinmen County Government came to visit.



小懶猴 (陳雲 / 攝)



黃珊珊副市長陪同布拉格市賀吉普市長等貴賓參觀熱帶雨林區穿山甲館



黃珊珊副市長與布拉格市賀吉普市長於穿山甲館前方合照留念



黃珊珊副市長致贈布拉格市賀吉普市長穿山甲造型文宣品



109年4月9日出生的穿山甲寶寶「果寶」及「潤喉糖」，未來將在捷克落地生根（林宜足 / 攝）



■金門畜試所及建設處來訪。

■柯文哲市長率領教育局陳素慧主任秘書等人，至本園探視人工哺育瀕危野生動物，包含大貓熊新生二寶及黑腳企鵝幼仔，本園由劉世芬園長及大貓熊館王怡敏館長等陪同探視。

■教育部潘文忠部長、教育部資科司郭伯臣司長、環保署綜計處劉宗勇處長、臺北市政府教育局主任秘書陳素慧等蒞臨本園參與「教育部暨跨部會『環境教育行動倡議』活動」。

■本園1人受邀至臺灣博物館「穿過你心系列演講」，本園分享穿山甲域外保育議題講座。

■本園3人受邀前往參與金門縣政府及金門救傷協會合辦之金門野生動物棲地保育工作坊，本園分享「歐亞水獺的域外保育工作」議題講座。

■本園1人受邀至臺北市自然領域召集人環境教育課程演講，分享本土動物保育議題講座。

■歐亞水獺保育研究平台：由林務局於金門主辦歐亞水獺保育工作平台會議，本園針對「歐亞水獺救傷、域外保育及教育推廣工作」等面向提出議題討論，提供經驗及專業，做為保育策略訂定之重要參考。

■穿山甲保育研究平台：由林務局於特生中心舉辦臺灣穿山甲之保育研究平台會議，本園提供2017年辦理之穿山甲PHVA保育策略研討會之報告書（臺北市立動物園與國際自然保育聯盟IUCN共同發表）及本園於穿山甲救傷、醫療、域外保育工作等豐富經驗，參與討論並共同擬定臺灣穿山甲的保育策略初步計畫。

■The Mayor, Ko Wen-Je led the people including Chen, Su-Hui, Chief Secretary of the Department of Education, to visit the captive bred endangered wildlife including two newborn giant panda and jackass penguin chicks in the zoo. Liu, Shyn-Fen, Director of the zoo and Wang, Yi-Min, Director of the Giant Panda House accompanied the visit.

■Pan, Wen-Chung, Minister of Education, Kuo, Bor-Chen, Director from the Information and Technology Education Department of Ministry of Education, Liu, Tsung-Yung, Director from Comprehensive Planning Department of Environmental Protection Administration, Chen, Su-Hui, Chief Secretary from Department of Education of Taipei City Government came to visit the zoo and participate in the "Ministry of Education and Inter-ministerial Conference Environmental Education Initiative activity".

■One person from the zoo was invited to the "Through Your Heart Series Lecture" at the National Taiwan Museum, and the zoo shared a lecture on the topic of pangolin ex-situ conservation.

■Three people from the zoo were invited to participate in the Kinmen Wildlife Habitat Conservation Workshop jointly held by the Kinmen County Government and the Kinmen Wildlife Rehabilitation and Conservation Association.

The zoo shared a lecture on the topic of "Ex-situ Conservation of Eurasian otters".

■One person from the zoo was invited to give a lecture on the convener environmental education course of the natural field in Taipei, and shared a lecture on the conservation of native animals.

■Eurasian otter conservation research platform: The Eurasian otter Conservation Work Platform Conference was organized by the Forestry Bureau in Kinmen. The zoo put forward discussions on topics such as "Eurasian otter Rescue, Ex-situ Conservation and Education Promotion Work", and provided experiences and expertise as an important reference for the formulation of conservation strategies.

■Pangolin conservation research platform: The Formosan Pangolin Conservation Research Platform Conference was organized by the Forestry Bureau at the Endemic Species Research Institute. The zoo provided the report of the Pangolin PHVA Conservation Strategy Seminar (jointly published by the Taipei Zoo and International Union for Conservation of Nature and Natural Resources (IUCN)) held in 2017 and extensive experiences in pangolin rescue, medical care, and ex-situ conservation work, participated in discussions and jointly formulated a preliminary plan for the conservation strategy of Formosan pangolins.



大貓熊新生二寶「圓寶」，照養團隊日日細心照養，讓圓寶可以趕快放展跟民眾見面