

NATIONAL GEOGRAPHIC

國家地理雜誌 中文版

凝視臺灣生態脈動

2022 國家地理臺灣攝影大賽

生態永續攝影專刊

2022 TAIWAN PHOTO CONTEST

ECOLOGICAL SUSTAINABILITY PHOTO STORY
SPECIAL EDITION

生態永續 環境共生

Sustainable and Interdependent Ecological Environments

長期與專業公益夥伴合作 致力於人與自然的平衡與和諧

Cultivating balance and harmony between nature and mankind via persistent collaboration with charity partners

12

年·環境守護

12 years of dedicated effort to environmental protection

持續關注濕地、水資源，及有害事業廢棄物對河川、海洋、土壤和環境的污染與衝擊；更透過生態監測促成「龍崎牛埔」成為臺灣首座同時具有自然保留區及地質公園之泥岩珍貴地景。



21.3

公頃·棲地認養

21.3 hectares of sponsored habitat adoption

以棲地認養、環境復育、友善農耕、生態調查與監測等方式，進行棲地保育與守護，包括台北富陽自然生態公園、關渡自然公園月池埤塘、宜蘭雙連埤等，認養面積達21.3公頃。



127,000

人次·環境教育

127,000 people participated in environmental education sessions

以解說導覽、推廣講座、工作假期、戶外教學、志工培訓、自然體驗活動、生態營隊等形式推動環境教育，超過12.7萬人次參與。



wistron-foundation.org

wistron® 緯創人文基金會

以動人瞬間， 道出真實生命

Poignant Moments Speak to the Reality of Life

在 1905 年 1 月號的《國家地理》雜誌裡，第一任總編輯吉爾伯特·葛羅夫納以當時被視為離經叛道的方式以多達 11 頁的篇幅刊登西拉薩的照片，結果大受歡迎，自此建立了《國家地理》以攝影作為主要敘述工具的傳統。

一百多年來，《國家地理》的攝影以精彩、真實和故事性成為全球紀實攝影的標竿，全球攝影師也以作品能登上這本刊物為最高榮譽。作為《國家地理》雜誌中文版的出版方，我們希望將國家地理紀實攝影的精神帶給中文讀者，因此自 2015 年以來在臺灣舉辦了國家地理攝影大賽，並且累積了豐盛的成果。

今年的大賽與以往相比有一些不同：首先我們將攝影拍攝地點限定於臺灣，主要是希望臺灣的攝影愛好者更深入記錄自己生活的土地，捕捉自己身邊動人的影像。其次，我們特別開設了生態永續圖片故事的獎項，希望更多關於這片土地生態環境的議題能被記錄和報導。

正如您在這本刊物見到的，這次大賽產生了許多優秀的作品，記錄下臺灣的動人瞬間。我們恭喜得獎人，也感謝他們為影像的投入和付出。希望未來有更多攝影愛好者加入比賽，在我們生活的土地上拍攝出精彩、真實，而具故事性的影像。

最後我們特別感謝本次大賽的贊助者緯創人文基金會的大力支持，讓本次大賽能夠圓滿完成。

《國家地理》雜誌中文版總編輯



Editor-in-Chief
Yungshih Lee



As the publisher of the Chinese version of *National Geographic* magazine, we hope to deliver the spirit of National Geographic's documentary photography to Chinese readers. This is why we have held several National Geographic photo competitions in Taiwan since 2015, and have amassed fruitful results.

This year's competition differed from past years in a couple of ways. Firstly, we limited the location of photographs to Taiwan, mainly to encourage Taiwan's photography enthusiasts to document the land they live in with inspiring images. Secondly, we established a prize for photo stories on ecological sustainability in hopes that more issues related to the ecological environment of this landscape can be documented and reported. Many outstanding works have come from this year's competition. We congratulate the winners and thank them for their dedication.

Last but not least, we would like to thank the event's sponsor, Wistron Foundation, for helping us make this contest a success.

守護腳下 這片土地， 沒有誰是局外人

No one is an outsider when
it comes to safeguarding this
land beneath our feet

緯創人文基金會自 2010 年成立以來，便積極關注環境議題，與具有相同理念的專業夥伴合作。《國家地理》長期以攝影視角展現生態之美，並以生動寫實的照片讓大眾看見生態浩劫的問題，與緊鄰人類卻仍被忽視的環境議題，這與我們所要傳遞的想法相當契合。很高興能在今年與《國家地理》合作，重啟臺灣攝影大賽，讓一幀幀具有震撼力的照片，為每個人的心中種下一棵綠種子。

這次大賽受疫情影響而聚焦臺灣，面對生態條件多樣、造就各式獨特棲地環境的寶島，緯創以認養棲地、野生動植物和猛禽的保育與救傷等方式，守護在地生物多樣性，並推動環境教育，鼓勵兒童、青年，以至於社會大眾親近自然，也號召同仁採取實際行動，身體力行地與土地連結。自 2006 年開始，許多緯創同仁和家人擔任富陽自然生態公園守護志工，以及宜蘭雙連埤棲地志工等，透過實際參與，學習生態復育與永續之道，真實體驗友善生態的意義，洞見人與萬物共生共榮的美好。

作為一個具有影響力的企業所肩負的使命，便是讓 ESG 的精神付諸實現，包含生態之美 (environment)、社會之善 (social) 與治理之真 (governance)，這些真善美的內涵，能構築出企業永續的藍圖。生態之美在這次大賽中的作品得以



緯創人文基金會董事長

展現，同時也期待有更多關注自然環境的夥伴，與我們攜手共進，以創新思維讓企業與環境一起走向永續發展，實現「創新而永續」的願景。

Since its inception in 2010, the Wistron Humanities Foundation has been actively focusing on environmental issues and working with like-minded professional partners. Through vivid and realistic photographic story-telling, *National Geographic* magazine has a long history of showcasing nature's beauty and raising public awareness of ecological catastrophes and environmental issues that are all around us, work that is very much in line with our own mission. We are delighted to have worked with *National Geographic* magazine this year to re-launch the Taiwan Photo Contest. We hope that through every powerful photo, a "green" seed can be planted in everyone's heart.

Since 2006, employees and family members of Wistron have been volunteering at the Fuyang Eco Park and the Shuanglianpi Major Wildlife Habitat in Yilan, learning about



ecological restoration and sustainability through hands-on participation, experiencing the meaning of environmental friendliness, and gaining insight into the beauty of living and thriving together with all living things.

The mission of an influential enterprise is to bring the spirit of ESG to life, including the beauty of the environment, the goodness of society, and the truth of governance, which together form the blueprint for corporate sustainability. We hope that more partners who care about the natural environment will join hands with us to help enterprises and the environment move towards sustainable development with innovative ideas and realize the vision of “innovation and sustainability” .

Chairman of Wistron Foundation
Simon Lin



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1 緯創志工自2017年起參與雙連埤復育棲地工作，守護這座珍貴的濕地。

Since 2017, Wistron Foundation volunteers have participated in the restoration of the Shuanglianpi habitat to conserve this precious wetland.

2 鼓勵員工在原始環境中陪伴孩子成長，讓下一代啟動與自然的連結。

We encourage employees to bring their children along, fostering the next generation's connection with nature.

3 陪伴弱勢及特殊兒童走入自然共同關懷環境，學習尊重生命。

We accompany disadvantaged and specially-abled children into nature, where they learn to care about the environment and treat all life with respect.



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徵件成果 Entry Results



2022 國家地理臺灣攝影大賽 ——生態永續攝影得獎作品

2022 National Geographic Taiwan Photo Contest Ecological Sustainability Photography - Award Winning Works

《國家地理》雜誌透過紀實攝影捕捉蘊含驚奇與獨特影像，讓每位讀者宛如身歷其境，領會具啟發性的影像故事。2022 年國家地理臺灣攝影大賽由緯創人文基金會贊助，首次設立生態永續徵件，引領大眾關注環境議題。

生態永續組特別徵求 5 張一組的圖片故事作品，盼參賽者能呈現出完整的生態故事引發群眾的興趣與好奇，進一步尊重、理解多元生態，共同維護臺灣原始環境的多樣風貌，評選後最終選出冠、亞、季軍及一組佳作。

National Geographic magazine enables readers to experience and appreciate inspiring stories through documentary photography that captures unique images that are full of wonder.

The 2022 National Geographic Taiwan Photo Contest, sponsored by the Wistron Foundation, features the first-ever ecological sustainability category to raise public awareness of environmental issues.

The ecological sustainability category called for five-photo story entries, in hopes that the participants could present a comprehensive ecological story to arouse the interest and curiosity of the public, inspiring them to further respect and understand diverse ecologies as well as to protect the richness of Taiwan's pristine environments. Following a thorough review, the first, second and third place winners and one recipient for honorable mention were selected.



冠軍作品 First Place

最萌殺手黃喉貂（羌仔虎）

Adorable Killer: The Yellow-throated Marten

攝影 高守誠 Photographer Kao Shou Cheng

臺灣的黃喉貂，生活在太平山、玉山、太魯閣等中海拔山區，體型嬌小卻能以二至三隻的群體合作方式，獵捕山羌、小山豬或小山羊等中大型動物，被譽為「山羌殺手」，與可愛靈動的外型截然不同。

「跑跳玩耍的黃喉貂，在山羌從草叢裡躍出時，便進入九死一生的瞬間。」



The yellow-throated marten, listed in the IUCN Red List as a vulnerable species (VU), is active in mid-altitude mountain areas such as Taipingshan, Yushan (Jade Mountain), and the Taroko mountains. It is small in size but can work together in groups of two or three to hunt medium and large-sized animals such as muntjacs, small boars, or small goats. It is known as the "muntjac killer" , in sharp contrast to its cuddly and light-footed appearance.

"Cavorting around only moments before, the yellow-throated martens leapt into action and a deadly hunt when the muntjac emerged from the grass."



「夥伴盯哨圍捕，讓帶頭疾馳的黃喉貂，得以緊盯山羌的咽喉，尋求一擊斃命的契機。」

食性廣泛又機敏的黃喉貂，不泛獲取食物的方式，卻因山林間的垃圾、廚餘或遊客餵食、攜帶家犬等，在近年捕捉繫放研究時，於血液檢測中發現感染肝簇蟲及腺病毒，未來可能導致慢性肝炎發生。

「共享食物，是人類與野生動物最壞的距離。」



"With help rounding up the prey from its hunting partner, the leading and sprinting yellow-throated marten is able to focus on the muntjac's throat and seek a kill shot."

The resourceful yellow-throated marten can feed on a wide range of natural food sources. However, due to garbage left in the mountains, food waste, and tourists who feed them or bring pet dogs, in blood tests conducted through capture-release studies in recent years, the animals have been found to be infected with hepatozoonosis and adenovirus, which may lead to chronic hepatitis in the future.

"Getting close enough to share food is the worst distance between humans and wild animals." ■



亞軍作品 Second Place

謎樣的真菌微世界

The Enigmatic Microcosm of Fungi

攝影 林汝貞

Photographer

Lin Ru Zhen



四面環海、位於副熱帶與熱帶地區的臺灣，溫暖潮濕的氣候，是真菌的最愛。真菌可以是食物或家具上的斑點，或是餐盤上的菇類，就在你我觸手可及之處。

「獨樹一幟的真菌自成一界，在生態系扮演了關鍵而非凡的角色，讓地球生生不息。」

Surrounded by sea and located in the subtropical and tropical regions, Taiwan has a warm and humid climate that provides fungi with their favorite habitat. Commonly known as molds, fungi can be spots on food or furniture, or mushrooms on a dinner plate, just within our reach.

"Unique fungi form a world of their own, serving a critical and extraordinary role in the ecosystem to keep the planet alive."



繽紛多樣的真菌，比起向陽的植物更顯陰鬱默然，以腐生、寄生、共生方式吸取外界養分，看似毫無貢獻，卻是地球的清道夫，森林裡的殘枝敗葉，草原上的動物腐屍，都有真菌的蹤跡，以分解者之姿，將亡體回歸自然。

「若少了菌類分解，古代的生物屍體至今將無法腐化，人們只能居住在囤滿動植物殘體的地球。」

Fungi may seem silent and gloomy compared to sun-oriented plants, feeding on the outside world in a decomposing, parasitic, and symbiotic manner, but they are the scavengers of the earth. The forest litter and the decomposing animals in the grassland are all accompanied by fungi, which act as decomposers and return the remains to nature.



"Without the decomposition of fungi, the corpses of ancient organisms would not have been able to decompose, and people would have to live on a planet filled with the remains of animals and plants."

美麗的事物常帶著刺，有些真菌具有保健或醫療功效，引發人體過敏與食物中毒亦時有所聞，然而，它依舊是人類過度開發環境時，不可或缺的好夥伴。

「美國真菌學家保羅·史塔曼茲（Paul Stamets）發現，真菌能以酵素分解有機汙染物，有些甚至能吸收環境中的重金屬離子，以生物修復的方式移除、降解環境中的汙染物。」

Beautiful things often have thorns. While some fungi are known to possess health or medicinal properties, they have also been known to cause allergies and food poisoning. Nevertheless, they remain indispensable as humans overexploit our environment.

"American mycologist Paul Stamets has discovered that fungi can break down organic pollutants with enzymes, and some can even absorb heavy metal ions from the environment, removing and degrading pollutants in a bioremediation process." ■





季軍作品 Third Place

追淚 Chasing Tears

攝影 張登峰 Photographer Zhang Deng Feng

由荒野保護協會與綠色和平組織啟動的「海岸廢棄物快篩調查」發現，海岸線海廢密度，馬祖為全臺之冠。海廢垃圾的累積量，會受風向與澳口方位影響而有所不同，但 7 處調查的沙灘中，已有 5 處可清出高達 18 至 475 袋的垃圾。

The coastline of the Matsu Islands had the highest density of marine waste in Taiwan in 2020. The amount of accumulated marine waste varies depending on the direction of the wind and the orientation of the estuary, but five of the seven beaches surveyed yielded between 18 to 475 bags of waste.



「藍眼淚是有毒生物？還是海洋受到汙染所致？」

"Are blue tears toxic creatures? Or are they the result of ocean pollution?"



臺灣海洋大學教授蔣國平與研究團隊深入調查，發現馬祖的藍眼淚是一種無毒的夜光蟲造成的現象，並非海域汙染或有害的生物。矽藻等植物性浮游生物增加，誘發以此為食的夜光蟲大量聚集，夜光蟲受到海水震盪等刺激，便會在表面呈現螢光，形成隨波發光的絕景。

Professor Kuo-Ping Chiang of the National Taiwan Ocean University and his research team conducted an in-depth investigation and found that the "blue tears" of the Matsu Islands are composed of a non-toxic organism commonly known as the luminous worm, not a polluted or harmful organism in the ocean, and are unrelated to algal blooms caused by eutrophication. On the contrary, the algal bloom increases the number of diatoms and other phytoplankton, attracting a large gathering of luminous worms that feed on them. The worms produce bioluminescence in agitated water, leading to a spectacular scene of luminescent waves. ■



佳作作品 Honorable Mention

生命的更新 The Renewal of Life

攝影 林介生 Photographer Lin Jie Sheng

北埔蟬（雄）羽化

「盛夏的防風林，夜裡，北埔蟬出土，找尋枝條；定著，開始掙扎羽化。一旁的蚊子，恰巧與北埔蟬姿勢雷同。」

Emergence: *Taiwanosemia hoppoensis* (male)

"In the windbreak forest in high summer, at night, the Beipuo cicada breaks through the ground and looks for a branch; settles down and starts to struggle to emerge. The mosquito on the side happens to have the same posture as the cicada."



薄翅蟬（雌）羽化

「夏季鳴蟬的代表物種之一，近乎每個人都入耳過牠的聲響，又有多少人知道那是牠呢？」

Emergence: *Chremistica ochracea*
(female)

"One of the representative species of summer cicada songs. Almost everyone has heard its sound, but how many people know it is them?"



細蟬（雄）羽化

「很細小又精緻的物種，中空的腹腔，將是牠這個夏季的生命任務中，傳達渴望的共鳴之所。」

Emergence: *Leptosemia sakaii*
(male)

"A tiny and delicate species with a hollow abdominal cavity, which will resonate with longing as the creature carries out its life's mission over the summer."

侏儒蜻蜓（雌）羽化

「暫時性的水塘，漆黑無光的夜裡，不少枝條與草叢上，選在今晚離開水中的水蠶稚蟲們，將解答第一個生死難題——成功有近半的或然率。」

Emergence: *Diplacodes trivialis* (female)

"In a temporary water pond in a pitch dark night, on many branches and bushes, the dragonfly larvae that chose to leave the water tonight will face their first life-or-death challenge—the chance of survival is fifty per cent."



纖腰蜻蜓（雌）羽化

「羽化時間越長，面對的風險越高，近四個小時無法動彈的野生環境裡，牠所挑選的位置，能否替自己趨吉避凶？」

Emergence: *Zyxomma petiolatum* (female)

"The longer the dragonfly larva takes to emerge, the higher the risk it faces. In a wild environment where it must remain immobile for nearly four hours, will the spot it has chosen help it to escape misfortune?" ■



透過鏡頭， 描繪被漠視的生態意義

Portraying the neglected ecological significance through the camera lens

2022 年國家地理臺灣攝影大賽的參賽作品數量較前一屆成長 17%，顯見國家地理攝影大賽持續吸引攝影迷熱情參與，呈現不同角度的臺灣之美。生態永續主題盼以攝影師之眼，捕捉不同觀點與視角的自然影像，展現多元生態的生命力。願參賽者跳脫局限，以主題連貫的五張照片，充分展現影像魅力——「故事性」是評選的最大關鍵。卓越的攝影技術與取景，尚待劇情意涵觸動人心、引發群眾好奇，進一步尊重、理解與維護世界的多樣風貌。

環境紀錄片導演柯金源強調，影像故事若能引發眾人對生態的關注，比起強烈視覺更具意義；《國家地理》空拍大師喬治·史坦梅茲提醒參賽者重視基本的攝影技巧，構圖與美感仍屬重要；《國家地理》雜誌總編輯李永適認為，從照片的獨特性、原創性，就能窺見參賽者是否具有捕捉珍貴影像的企圖心。

遺憾的是，因僅有少數參賽作品具故事性，另再剔除影像過曝、取景或視覺不佳，以及不符合動物習性與行為的擺拍照，評審團最終選出冠、亞、季軍及一組佳作，從缺兩個佳作名額，以維持評選標準。另外，為了延續國家地理攝影大賽的教育目標，柯金源導演也協同本屆生態永續組之冠軍得主，前往特定復育地點進行攝影任務，傳承生態保育影像紀錄的觀念與技巧。

The 2022 National Geographic Taiwan Photo Contest saw a 17% increase in the total number of entries compared to the last time it was held, in 2020, demonstrating that the National Geographic Photo Contest continues to attract enthusiastic participation from photography devotees, highlighting the beauty of Taiwan from diverse perspectives. The ecological sustainability photo story category aims to utilize the photographers' eyes to capture images of nature from multiple viewpoints and perspectives to demonstrate the vitality of diverse ecologies. Contestants were not limited to submitting a single shot, but could use five consecutive photos to fully tell a story through their images - "storytelling" being the key criterion for selection. Outstanding photographic technique and framing must be complemented by drama and meaning in order to touch hearts and trigger curiosity, further motivating people to understand, respect and help preserve the world's diverse ecologies.

Ke Chin Yuan emphasized that a photo

2022 國家地理臺灣攝影大賽評審

2022 National Geographic Taiwan Photo Contest,
Ecological Sustainability Category Panel Committee of Judges



《國家地理》雜誌 總編輯
Editor-in-Chief, *National Geographic Chinese Edition*

李永適
Yungshih Lee



環境紀錄片導演
Environmental Documentary
Director

柯金源
Ke Chin Yuan



《國家地理》空拍大師
National Geographic explorer,
aerial photography specialist

喬治·史坦梅茲
George Steinmetz

story is much more meaningful when it is not just about strong visuals, but can also raise public awareness about ecology; George Steinmetz reminded contestants to pay attention to basic photography skills, and that composition and aesthetics still matter; while Yungshih Lee believed that the uniqueness and originality of a photo revealed whether the contestant had the drive to capture rare and hard-won images.

Regrettably, as only a few of the entries were story-oriented, and excluding those with overexposed, poorly framed or visualized images, or photos that did not conform to animal habits and behaviors, the

judges finally selected the first, second, and third place winners and one honorable mention, leaving two honorable mentions vacant so as to uphold the selection standard. Furthermore, in order to continue the educational goal of the National Geographic Taiwan Photo Contest, Director Ke Chin Yuan and the winner of this year's ecological sustainability category went on a photography mission to a restoration site so that the concept and skills of photographic documentation of ecological conservation could be passed on. ■

烈日下，專注觀察是否有動物的蹤跡。

生態永續報導任務

Ecological Sustainability Reportage Mission

由緯創人文基金會大力支持的 2022 年國家地理臺灣攝影大賽，首次新增比賽項目「生態永續組」，特別邀請環境紀錄片導演柯金源擔任指導老師，攜手生態永續組的冠軍得主高守誠至宜蘭雙連埤進行「生態永續報導任務」，傳授生態攝影的心法與技巧，也在新一代優秀攝影師的心中，種下守護環境生態的種子。

The contest invited Ke Chin Yuan, a Taiwanese environmental documentary director, to participate as an instructor, teaming up with the winner of the ecological sustainability category to conduct an "ecological sustainability reportage mission" in Shuanglianpi Wetland, Yilan, to impart the techniques and know-how of ecological photography as well as to cultivate the seeds of environmental and ecological protection in the hearts of the new generation of outstanding photographers.

柯金源 Ke Chin Yuan

從 1980 年開始記錄與關懷臺灣環境，長期推動環境教育、協助培養臺灣環境與生態媒體工作者，獲選為《國家地理》華人探險家，現為公視紀錄片導演、製作人。紀錄片作品獲頒與入圍臺灣卓越新聞獎、電視金鐘獎、臺北電影節紀錄片首獎，國際獎項有韓國綠色影展、美國 CINE 金鷹獎、蒙大拿國際野生動物影展 IWFF「最佳電視節目獎」與「最佳觀點獎」，以及紐約電視展銀獎、休士頓影展白金獎等。

Ke Chin Yuan has been documenting and taking an interest in Taiwan's environment since 1980.

He is known as "Master Ke" and has been promoting environmental education as well as helping to train environmental and ecological media workers in Taiwan, earning him the title of National Geographic Chinese Explorer. He is now a documentary film director and producer for Taiwan's Public Television Service.

His documentary works have been awarded and nominated for the Taiwan Excellence in Journalism Award, the Golden Bell Award for Television, the first prize for documentary films in the Taipei Film Festival, and international awards such as the Green Film Festival in Seoul, the CINE Golden Eagle Awards in the U.S., the Best TV Program Award and the Best Point of View Award in the Montana International Wildlife Film Festival (IWFF), the Silver Award in the New York Television Festival, and the Platinum Award in the Houston Film Festival.

如何喚起人們對珍貴濕地的保護意識呢？乘載著生態教育使命的兩位攝影家，以踏實的步伐前行。

靜護生態原貌， 做一位不打擾的 旁觀者

Protecting the native ecology
as a quiet observer

緩緩運鏡，試圖在畫面中尋找驚喜，柯金源導演與本次生態永續組冠軍高守誠一同守候在草叢中，長鏡頭望向雙連埤的天然浮島。一行人乘著柯導稱之為「魔幻時刻」的晨曦，清晨六點前就抵達宜蘭縣員山鄉的雙連埤，這座臺灣罕見的低海拔濕地，孕育了 90 幾種臺灣本土水生植物，是進行生態攝影的絕佳場域。湖邊小徑遺留著新鮮的排遺，柯導拾起樹枝，蹲下且撥開一般人慌忙閃避的糞尿，揣測這位嬌客的食性。

什麼是以生態為本的攝影？如何用單張影像說出完整的故事？「視角」不僅僅是景觀窗的方框，這既定框架背後的觀點，才是關鍵。在民眾風靡於臺

灣錢淹腳目的 80 年代，柯金源便開始思考攝影的意義，不只是拍出美麗的山海、動植物，而要構思畫面所富含的意義。

「柯導完全沒有架子，給了很多不凡的觀念，觸發我的靈感。」高守誠以緊張期待的心情，前一夜輾轉難眠，興奮地分享柯導的提點：「剛剛去拍水面上的野菱，以往我會把植物當作拍攝主體。柯導建議將共生的蛙類、蜻蜓一起納入，或同時捕捉黃蜂飲水，跨越單一物種，串起多元生態，就能說出豐富的故事。」柯導則讚許：「他已經有一定的水準了，但還是保有開放的學習心態，這很棒！」



- 1 懷抱著生態攝影的熱忱，兩人在竹筏上愉快互動。
- 2 習慣了肩上攝影機的重量，在埤邊步道緩步前行。
- 3 在雙連埤中航行，嘗試捕捉這片綠意中的種種生機。
- 4 柯金源親身示範，指導微距拍攝水生植物的訣竅。
- 5 現場拍攝後，立刻討論取景角度與影像成效。

短暫的教學時刻，除了構圖與畫面呈現的技巧，高守誠體驗到田野調查或資料搜集，能擴大攝影的視野，對當地生態產生進一步的興趣，與拍攝場景有更深度的連結。柯導說：「現在最重要的責任，就是把經驗傳承下去。」攝影技術只是根基，輔以相應的生物知識，才能描繪立體生動的影像架構，然而更重要的，是對各種生命充滿好奇、關愛，方能以無比的熱忱在烈日狂雨下悉心靜待，只為捕捉突如其來的精彩一瞬，讓這一瞬的表達力道穿透所有閱聽者的主觀意識——人類從來就不是主宰者，而是與大地共存共生的觀察者。

Slowly scanning the scene for an unexpected moment to capture, Director Ke Chin Yuan, together with first-place winner of the ecological sustainability category Kao Shou Cheng, waited in the grass, their long lenses pointed at the natural floating islands of

Shuanglianpi. Taking advantage of the morning light, which Director Ke referred to as the "magical moment," the group had arrived at Shuanglianpi in Yuanlin Township just before 6 a.m. This rare low-altitude wetland in Taiwan is home to more than 90 species of native aquatic plants, making it an excellent location for ecological photography. Seeing fresh excrement left behind on the lakeside path, Director Ke picked up a tree branch, squatted down, and poked at the urine and feces that people generally scurry to avoid, speculating on the feeding habits of this charming visitor.

What is eco-based photography? How can we tell a complete story with a single image? A "perspective" is much more than the square



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of the viewfinder; it's the thinking behind the given frame that really counts. In the 80s, when the Taiwanese public was busy making money, Ke Chin Yuan had already started to think about the meaning of photography, which was not only to capture the beautiful mountains, sea, animals, and plants, but also to imbue the images with meaning.

"Director Ke gave me a lot of great, inspiring tips." Kao Shou Cheng, who had tossed and turned the night before with anxious anticipation, now excitedly shared Director Ke's advice with us: "Just now we went to photograph wild water caltrops. In the past, I would simply focus on plants as the main subject. However, Director Ke suggested including symbiotic frogs and dragonflies or capturing wasps drinking water simultaneously to tell a more colorful story." Director Ke praised Kao for "keeping an open mind to learn even though he has already reached a certain level in his photography."

During the brief lesson, in addition to learning the skills of composition and presentation, Kao Shou Cheng also came

to understand that field research or data collection could broaden the perspectives of photography, generating further interest in local ecology and a deeper connection with the scenes being photographed. "The most important duty I have now is to pass on my experience," said Director Ke. Photographic technique is only the foundation; only when supplemented with relevant knowledge in biology can an image truly become vivid and three-dimensional. More importantly, however, is to be curious and caring about all kinds of life. Only then will come the passion to patiently wait under the scorching sun and pouring rain, just to capture that unexpected moment of wonder. It is the expressive power of that one moment that will reach the subjective minds of audiences, conveying the fact that humans were never the masters of all things, but observers who live and thrive alongside nature. ■



高守誠拍攝成果

Kao's Mission Results

第一次體驗穿青蛙裝潛入泥潭，在這種半坐在軟泥的狀態下，還要穩住拿著相機的雙手，試著在微距找到焦點，拍出清晰生動的影像，親身體驗到生態攝影的難度，以及背後所需要付出的精力與熱忱。



Wearing an amphibious suit for the first time and wading into the mud, I had to hold my camera steady while half sitting in the soft mud, searching for a focal point at a macro distance and trying to capture vibrant and crisp images, thus experiencing for myself the challenge of eco-photography as well as the dedication and energy required in the process.



- 1 小彎嘴畫眉
Pomatorhinus musicus
- 2 灰頭鷓鴣
Prinia flaviventris
- 3 日本野菱與椿象
Trapa Japonica Sieb and shield bug
- 4 藍黑蜻蜓
Rhyothemis regia regia



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生態復育示範

Model of Ecological Rehabilitation



生命自然的樣貌，便是無可取代之美，人類如是，環境亦然。復育，是人為破壞後，防止它繼續惡化甚至消失，而採取的積極作為。

《國家地理》雜誌邀請資深攝影師陳郁文，到訪富陽生態公園、雙連埤與龍崎牛埔惡地進行生態攝影拍攝，為這片臺灣特有的生態環境留下美麗的記錄，進而引發更多人對生態保育的關心與投注。

這三處由荒野保護協會、臺南社大研究發展學會守護的土地與生機，在緯創人文基金會贊助下得以持續投入人力與長期策略性的研究調查，有效的保護與復育在地自然生態，為生生世世的下一代，守住獨特美麗的福爾摩沙。

Life in its natural form has an irreplaceable beauty; this is true for both humans and the environment. Restoration is a proactive approach taken by humans to prevent further deterioration or even disappearance of an environment after it has been damaged.

National Geographic invited veteran photographer Chen Yu-wen to visit Fuyang Eco Park, Shuanglianpi, and Tainan Longci District Niupu Badlands to document the beauty of these unique ecological environments in Taiwan, and to inspire more people to take an interest in and devote themselves to ecological conservation.

These three sites are looked after by The Society of Wilderness and the Research and Development Society of Tainan Community University. With the support of Wistron Foundation, these sites have continued to receive the manpower and long-term strategic research and surveys needed for effectively protecting and restoring the local ecology, preserving the unique beauty of Formosa for generations to come.

富陽自然生態公園位於臺灣臺北市大安區，面積約3.8公頃。公園保有台北市少有的優美林相和山稜線，與繁華的市區只有一線之隔。

(攝影 陳郁文)

Located in the Da'an District of Taipei, Taiwan, the Fuyang Eco Park occupies an area of roughly 3.8 hectares. Situated right on the edge of the bustling downtown, the park boasts beautiful trees and mountain ridges that are rare in Taipei City. (Photo: Chen Yu-wen)



繁華首都裡的動物樂園 ——富陽自然生態公園

**Fuyang Eco Park, an ecological paradise
in the bustling metropolitan capital city**

位於臺北市大安區的富陽自然生態公園，面積約3.8公頃，與繁華的市區只有一線之隔，是臺北第一座以保育自然生態為成立目標的森林公園，緊鄰捷運站仍保有臺北少有的優美林相和山稜線。

相對於市內多數水泥鋪面、充滿人工設施的公園，富陽自然生態公園的核心區是在地生物的重要棲所，保留原有軍事步道，不再增設水泥步道，讓動植物自然活動與生長。在長期保育與維護之下，園內樹木參天、植被豐富，多達331種的植物提供生物生存庇護，哺乳類、鳥類、兩棲爬蟲類、無脊椎動物種類繁多，包括臺北樹蛙、長吻白蠟蟬、白鼻心等10種保育類動物，多種猛禽、本土蛙類與蛇類

更遍佈園區，成為野生動物在都市裡的高密度棲地。

荒野保護協會副秘書長莊育偉說，2004年開始認養富陽公園，2006年緯創人文基金會加入，迄今16年的共同守護已吸引2萬人次民眾參與棲地改善、生態調查、清除外來種及生態導覽等保育活動。這顆臺北都會區的美麗綠寶石，讓臺北市公園路燈管理處催生了後續的12座自然公園，改以生態需求為主軸的分區管理方式規劃園區，並同時擴大生態化的效應，如榮星花園成功復育螢火蟲，青年公園也正與荒野合作，讓生態導向的公園開始在都會區遍地開花。



公園裡暗夜狩獵的赤尾青竹絲，爬行中驚動了姑婆芋上的螞蟻，驚慌的螞蟻爬到牠臉上，形成有趣又難得的畫面。(攝影 陳郁文)

A bamboo snake hunting in the park at night startles the ants on a giant elephant's ear. The panicked ants crawl onto the snake's face in a rare and interesting sight. (Photo: Chen Yu-wen)

Fuyang Eco Park, located in Da'an District, Taipei City, occupies an area of approximately 3.8 hectares and is located within a short distance from the bustling metropolitan area. Fuyang Eco Park also serves as the first eco-friendly forest park in Taipei with the aim of preserving the natural ecology, retaining beautiful tress and mountain ridges that are rare in Taipei even though it is right next to a metro station.

In contrast to most human-centered parks with concrete pavements and artificial facilities, Fuyang Eco Park's heartland provides a vital habitat for local organisms, preserving the original military trail while

refraining from installing additional concrete trails, thereby preventing human intervention and facilitating the natural movement and growth of plants and animals. Thanks to long-term conservation and maintenance, the park is abundant in trees and vegetation, with as many as 331 species of plants providing shelter for a wide variety of mammals, birds, amphibians, reptiles, and invertebrates, including 10 protected species such as the Taipei tree frog, the long-nosed wax cicada, and the masked palm civet, as well as many species of raptors, native frogs, and snakes, making the park a high-density residential neighborhood for wildlife in the city.



Chuang Yu-wei, deputy secretary general of The Society of Wilderness, said that after the society adopted Fuyang Eco Park in 2004 and Wistron Foundation came on board in 2006, so far the 16 years of joint conservation has attracted 20,000 participants to engage in conservation activities such as habitat improvement, ecological surveys, exotic species removal and guided ecology tours. This beautiful green gem in the Taipei metropolitan area has led to the planning of 12 subsequent ecological parks by the Parks and Street Lights Office of the Taipei City Government. The new parks focus on the ecological needs of an area and aim to expand the effects of ecological preservation. One example is the successful rehabilitation of fireflies in Rongxing Garden, while the Youth Park is starting to work with The Society of Wilderenss, all part of a blossoming of ecologically-oriented parks in the metropolitan area. ■



圖片提供 荒野保護協會

Image courtesy of The Society of Wilderness

全年潮濕多雨的雙連埤，是臺灣少有的低海拔濕地，保育類的臺灣特有種臺北樹蛙，在雙連埤經常可見。

(攝影 陳郁文)

Humid and rainy year round, Shuanglianpi is a rare low-altitude wetland in Taiwan. The Taipei tree frog, a protected endemic species, can often be seen here.

(Photo: Chen Yu-wen)



把失去的種回來 ——國家級濕地雙連埤

Planting back what was lost - Shuanglianpi, a national wetland

位於宜蘭員山鄉的雙連埤濕地是依濕地保育法公告的國家級濕地。豐富的濕地生態、周邊溪流及森林環境，孕育的水生植物高達 112 種，占臺灣原生生水植物的 1/3 以上，水棲與陸棲昆蟲超過 250 種，再加上野生動物，其物種豐富度在全球濕地名列前茅，是濕地研究與環境教育的絕佳場域。

荒野保護協會副秘書長莊育偉說，擁有真正天然能因天候飄移的「浮島」，大概就德國與臺灣兩地，根據專家推估形成天然浮島需要 500 年以上，因此十分的珍貴。但雙連埤卻曾遭遇過人為的開發干擾、包含浮島的移除、邊坡天然土堤的整地挖掘、瀕危水生植物的拔除棄置，甚至在湖域裡放養外來種的草魚，使得整體生態系統仍有待恢復。在宜蘭縣府

的同意下，荒野將水社柳、野菱、石龍尾等原生物種，於保護區內進行就地復育，或於山下的水池進行移地復育，目前已成功將 78 株水社柳移回且生長良好。

「有我們在，開發的威脅就不容易進來。」荒野保護協會的黃閔義談到。荒野保護協會自 2010 年起長期投入雙連埤的棲地守護與生態保育，深入當地並獲得在地農民的信賴，齊心推動友善農耕與契作，連年舉辦戶外教學、志工培訓、清除外來種、教育推廣、棲地工作假期等超過 300 場活動，成功打造「雙連埤環境教育暨棲地守護基地」，讓這片土地的珍稀物種與居民共存共榮。



The Shuanglianpi Wetland in Yuanshan Township, Yilan County, is a national wetland declared in accordance with the Wetland Conservation Act. The rich wetland ecology, surrounding streams, and forest environment have fostered 112 species of aquatic plants, accounting for more than one third of Taiwan's native aquatic plants, and over 250 species of aquatic and terrestrial insects, and plenty of wildlife, making it one of the world's most abundant wetlands and an excellent site for wetland research and environmental education.

According to Chuang Yu-wei, deputy secretary general of The Society of Wilderness (SoW), "floating islands" capable of drifting naturally due to weather conditions are probably found only in Germany and Taiwan. Experts estimate that it takes more than 500 years to form natural floating islands, making them extremely valuable. However, Shuanglianpi has been subjected to disruption by human development, including the removal of floating islands, the excavation of natural earth embankments on the slopes, the removal and disposal of endangered aquatic

plants, and even the stocking of exotic species of grass carp in the lake area, leaving the overall ecosystem in need of restoration. Under the aegis of the Yilan County Government, the SoW has been successfully rehabilitating 78 Kusano willow trees in the area, as well as plants such as *Trapa incisa* and dwarf ambulia, in situ, or in ponds at the bottom of the mountain.

"With us here, this place is less threatened by development," says Huang Hung-yi of the SoW. Since 2010, the SoW has been committed to habitat protection and ecological conservation in Shuanglianpi, gaining the trust of local farmers and promoting eco-friendly farming and contract farming, organizing more than 300 activities over the years, such as outdoor education, volunteer training, exotic species removal, educational outreach, and habitat working holidays, thereby successfully creating the "Shuanglianpi Environmental Education and Habitat Protection Base", enabling the rare species of this land to coexist and prosper with its human residents. ■

險被汙染的壯闊月世界 ——龍崎牛埔

Longci District Niupu Badlands, the almost-polluted moon world

身為 2021《臺灣環境保護終身成就獎》唯一獲獎者，臺南市社區大學環境小組召集人黃煥彰長期用科學證據揭發重大汙染弊案，救下多處被毒害的土地與水資源，更從 2017 年開始，一頭栽入尚無相關研究的青灰岩泥質、地形與生態調查，終為臺灣守住全球僅義大利、喬治亞可見，無比珍稀的臺南龍崎牛埔惡地。

龍崎牛埔如月球表面般草木不生的陡峭山脊，大片的龜裂土地看似不具生產與經濟價值，而被公部門規劃為事業廢棄物的掩埋場，為使毒物免於侵蝕這片壯麗神聖的山脈，臺南社大環境小組黃煥彰在緯創人文基金會的支持下，備齊專業人力與紅外線照相機、小型飛機等設備，攜手組員晁瑞光與多位

專家學者上山踏查了數百次，多年來尋著動物腳印逐步探查與影像蒐集，發現荒地竟是淺山地區的生物方舟。依林務局統計有 20 種珍稀保育野生動物與瀕臨絕種的草鴉，這裡特有的泥岩植群、池塘及濕地植群，也孕育出 93 科 431 種植物及 75 科 218 種野生動物，加上巨厚泥岩組成的特殊惡地形，恰好位於龍船斷層上，雨蝕溝、沼氣噴發、斷層泥等特殊地質景象，更是臺灣獨有、最具地質教育價值的場域。

臺南社大正積極培育當地的「野地龍崎士」，讓龍崎居民與學員成立社區保育巡守隊，一起守護這片美麗且充滿生機的峭壁峽谷景觀。



As the sole recipient of the 2021 Lifetime Achievement Award for Environmental Protection in Taiwan, Huang Huan-chang, the convenor of the Environmental Group at Tainan Community University, has long been investigating major pollution cases with scientific evidence and has been able to salvage many damaged lands and water resources. Furthermore, in 2017 he began studying the properties, topography, and ecology of mudstone, about which little was known before, and was thus able to preserve for Taiwan the Longci Niupu Badlands, a rare type of terrain found only in Italy and Georgia elsewhere in the world.

The moonscape-like barren ridges and expanses of cracked land of Longci Niupu made it appear to have no productive or economic value, and had been planned for use as a landfill for business waste by the public department.

With the support of the Wistron Foundation, Huang Huan-chang, armed with infrared cameras and compact aircrafts, and together with his colleague Chao Rui-kuang from the Tainan Community University Environmental

研究團隊在臺南社大環境小組召集人黃煥彰的帶領與多年的推動下，依《文化資產保存法》在2021年4月由政府宣布暫列龍崎牛埔區域的132公頃為地質公園、149公頃為自然保留區。（攝影 陳郁文）

Under the leadership of Huang Huan-chang, the convenor of the Tainan Community University Environmental Group, the research team has been promoting the project for many years. In April 2021, the government designated 132 hectares of the Niupu area in Longci as an ecological park and 149 hectares as a natural reserve in accordance with the Cultural Heritage Preservation Act. (Photo: Chen Yu-wen)

Group and many other experts, made more than 100 trips to survey the badlands. Tracing animal footprints and collecting images over the years, they revealed that the wasteland was actually a biological ark in the low elevation mountains.

According to the Forestry Bureau, the Longci Niupu Badlands is home to 20 species of rare and conserved wildlife and the endangered grass owl, while the unique mudstone flora, ponds, and wetland flora have nurtured 431 species of plants in 93 families and 218 species of wildlife in 75 families. Furthermore, the special topography composed of thick and massive mudstones is located on the Longchuan Fault Area, giving rise to geological features such as rain gullies, methane eruptions, and fault gouges that are unique to Taiwan and offer immense educational value.

The Tainan Community University is actively nurturing local "Wilderness Longci Warriors" so that residents and students can form a community conservation patrol to protect this beautiful and vibrant landscape. ■



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保育珍稀動植物 守護台灣特有種

豐富多樣生態 共創永續環境

Caring for flora and fauna, protecting Taiwanese indigenous species

Everyone is in a part of ESG to achieve ecological prosperity

以影像力量 傳遞生態與生命價值

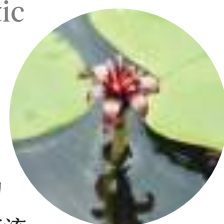
Conveying the value of ecological protection via the power of images



透過影像紀錄，傳達野生動植物生存危機、彰顯臺灣特有種及保育物種的獨特與珍貴。12年來贊助支持【老鷹想飛】、【小白鶴的報恩】、【解密穿山甲】、【夜行獵手-臺灣草鴞】、【尋找神話之鳥】、【山椒魚來了】、【守護黑面琵鷺】等生態紀錄片，喚起大眾對物種的關注，保育及復育的重要與迫切性。

致力濕地復育 瀕危水生動植物重現生機

Rehabilitating endangered aquatic animals and plants in wetlands



生物多樣性是永續環境重要基礎，宜蘭雙連埤為國家級重要濕地及野生動物保護區，關渡自然公園月池屬於淡水河流域重要濕地範圍，以棲地認養進行保育、復育及環境教育，讓臺灣原生水生植物及原生魚類重現生機。

