



保育

路上不缺席的身影

—專訪台灣師範大學生命科學系的王穎教授

Lifelong Dedication to Conservation

An Interview with Prof. Ying Wang of Dept. of Life Science, Nat'l Taiwan Normal Univ.

採訪撰文 / Interview & Text 邱和珍 Jane Chiu

翻譯 Translator / 歐冠宇 Kuan-yu Ou

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在台灣，有很多學者投入生態保育的領域，其中，出生於杭州，成長於台北松山空軍榮眷、以生物探索為職志的王穎教授，投入野生動物研究調查工作，不遺餘力，足跡遍及全台各地。

王穎教授不但「獨善其身」，在研究路上交出傲人成績；他也「兼愛天下」，完整的將保育理念及做學問的態度，傳授給莘莘學子。如今，他的學生們就像一顆顆的種子，在保育路上開花結果，不僅成為台灣動物研究工作上的重要支柱，更為國家公園培養出許多菁英。

眷村巷弄 就是他的博物館

台北松山機場在五十多年前附近皆是稻田，生態豐富，常見到魚蝦、青蛙，甚至蛇類悠遊其間。對王穎教授來說，松山老家就像一座沒有圍牆的自然博物館，也因此開啟了他對生物探索的歷程。

「我從小就很喜歡動物，也喜歡到處去觀察，而一路走來倒也蠻幸運的，所學都跟動物有關聯。」王穎教授說，早期台灣的環境處處都是鄉村及田野風光，讓他的童年過得非常充實。無論是地上爬的蟲、水裡游的魚或是天上飛的鳥，對王穎教授而言都是值得研究的對象。

「童年的時光深深影響我，到現在我還是喜歡探索新奇的生物。即使退休了，還是有很多的事情要做。」

早年赴美留學並取得野生動物學博士學位的王穎教授，對於這片孕育他的土地，不因出國求學而疏遠，反而有份人親土親，濃得化不開的情感。

祖籍浙江杭州的王穎教授，雖然台語不太「輪轉」，但他與生俱來的親和力，讓他在台灣各地進行研究時，並未因語言造成隔閡，甚至在墾丁國家公園的社頂、台江國家公園的七股瀉湖區、玉山國家公園的大分、太魯閣國家公園的山區……以及許多偏遠山區的原住民部落，都可以發現王穎教授探索各種生物的足跡，在他研究的過程當中，也充分表現對當地傳統習俗及人文的關懷。

梅花鹿 對照台灣保育路

王穎教授自美返台後，花了將近三十載來研究梅花鹿並參與復育工作。他認為梅花鹿復育如同台灣保育的一個縮影，保育首重觀念和實際行動，如果人們不了解、不認同，就無法達到環境保護及生態和諧的目標，如此一來，將使保育工作大打折扣。

1980年，台灣民間飼養的梅花鹿還有幾萬隻，但野外幾乎已看不見梅花鹿的蹤影了。因此，如何使梅花鹿回歸自然，一直是他關心的重點。「國家公園剛成立時，當時的營建署署長張隆盛先生對保育已有很多了解，認為可以從野外瀕危的梅花鹿著手，進行復育計畫並帶動環境保護及自然生態的關懷。」

Among the many scholars dedicated to biological conservation in Taiwan, Prof. Ying Wang is an influential figure who was born in Hangzhou, grew up in a military dependents' village in Songshan, Taipei, and has long been devoted to wildlife conservation across Taiwan.

Wang has been known not only as an outstanding scholar in academic research, but also as an earnest mentor who has educated numerous talents about conservation concepts and learning attitudes. Many of his students have become the elite in the field of zoological studies in Taiwan and in Taiwan's national parks today.

Childhood Village as a Museum

50 years ago when the communities near Songshan Airport were among rice paddies with all the fish, crayfish, frogs and snakes, Wang has started his exploration on living creatures in his hometown as a fenceless museum of natural history.

"I've been so into animals since I was little. I've always loved to watch them, and been lucky enough to have my education and career related to animals," said Wang, who spent a wonderful childhood in the rural village and the open fields. To him, everything that crawls, swims or flies could be an interesting subject to explore.

"My childhood experiences have shaped me into a person who always loves to explore new life forms. I still have a lot to do even after I retire."

Despite years of study in the U.S. before he obtained a Ph.D. in wildlife biology, Wang still has a special and strong bond with this homeland where he had been nurtured.

Though a Hangzhou-born mainlander who speaks limited Taiwanese, the congenial Wang was hardly hindered by the language barrier, but got along with people so well that he conducted research in Sheding at Kenting National Park (KTNP), Cigu lagoons at the Taijiang National Park (TJNP), Dafen at Yushan National Park (YSNP), mountains in Taroko National Park (TNP), and even in many remote aboriginal villages, where he always showed respectful and caring manners to local customs and people.

Fight for Restoration of Sika Deer

Since his return from the U.S., Wang spent nearly 30 years in the restoration of the Formosan Sika Deer (*Cervus nippon taiouanus*), which he thinks would reflect how well Taiwan do in wildlife conservation. If people could not become informed and take action to protect the environment, there'd be no future for conservation.

Back in 1980, the number of the sika deer in captive was about tens of thousands, but that of wild sika deer was almost nil. So Wang has been concerned about helping the deer live in the wild again. "The then-Director-general of CPAMI Mr. Lung-sheng Chang had the vision that the restoration of the endangered sika deer could raise people's awareness in environmental protection and conservation," recalled Wang.

復育台灣梅花鹿，是個既漫長又艱辛的挑戰。「除了要考量飼養環境、挑選合適的鹿隻進行育種、野放時的運輸方式等因素以外，還必須不斷和當地居民溝通保育觀念，讓整個復育過程順利。」

梅花鹿的復育計畫除了要應付環境與設備上各種可能發生的狀況外，最重要的是過「人」這一關。他舉例，在當地居民的傳統習俗中，梅花鹿被視為是一種資源，又因野放梅花鹿的區域與居民們放牧牛羊的地方重疊，使得梅花鹿倍受獵捕壓力。因此，居民對政府政策大多不支持，復育工作一度面臨空前的挑戰。為了消弭因不了解而產生的紛爭，王穎教授及墾丁國家公園長期和居民溝通保育觀念。「保育是將研究成果付諸施行的一個動態歷程。」王穎教授在課堂上是這麼教學生的，而他確實也親力親為。

做研究 把自己當「野人」

常對學生自稱「野人」的王穎教授特別強調這觀念。他總是帶著學生跋山涉水，追蹤在森林裡獨自遊蕩的台灣黑熊、觀察河鳥的生態習性、研究台灣水鹿的分布及其棲地……以啟發式的教學方式，提供給學生一個充分自由且寬闊的學習空間，讓學生們自己去找答案。

他認為，唯有跳脫人的靈魂枷鎖，融入大自然的環境裡，才能深切感受。人能與野生動物共享資源，是平等也是福氣。

不過，這「福氣」，也要想得開的學生才能體會出來，很難不把野外研究視為「苦差事」。

But this mission has been an uphill fight. "In addition to choosing the appropriate environment and deer for breeding and the proper transportation to release the deer to the wild, we also had to constantly communicate with local residents about the concepts of conservation."

Indeed, apart from the difficulties posed by the conditions of environment and facilities, the biggest challenge came from people. Traditionally, local residents had seen the sika deer, whose wild release areas overlapped with where the locals herded livestock, as a resource for hunt. This had put the deer and the restoration of them in great danger. In order to solve the conflict arising from lack of understanding, Wang and KTNP Headquarters had continued to communicate with the locals. "Conservation is a dynamic process of putting research results into action." That's what Wang has been teaching his students and has been carrying out personally.

A Researcher Seeing Himself as a Savage

Often calling himself a "savage" in front of his students, Wang also wants them to be one when they conduct research in the field. Wang always takes students into the deep mountains and remote waterways to trace the Formosan Black Bear (*Selenarctos thibetanus formosanus*), observe the Brown Dipper (*Cinclus pallasii*), and study the Formosan Sambar Deer, etc. while giving them much freedom and space to find out the answers by themselves

To Wang, only when humans see themselves as part of the Nature can they truly merge into it and feel it, just like other animals do. This equality is indeed a blessing for humans.

But it also requires open-mindedness on students' part to savor this "blessing" instead of seeing wildlife field research as drudgery.

王穎教授認為梅花鹿復育如同台灣保育的縮影 / 王穎教授提供
Wang thinks that the restoration of the Formosan Sika Deer (*Cervus nippon taiouanus*) is an epitome of Taiwan's ecological conservation. /Photo provided by Prof. Ying Wang



由於野生動物的地區大多是人跡罕至的地方，沒有旅館，吃的也很簡單，連著數天就地紮營是常有的事，學生必須能克服萬難，事前要多準備幾個替代方案。王穎教授舉例，就算帶了儀器，但要思考在關鍵時刻能不能用？又如車子在山上爆胎了，自己會不會換胎？千辛萬苦的開車快到研究地點，卻發現路斷了怎麼辦？是不是能到附近觀察，從其他地方找到可以調查的物種而得到補償？「凡事小心謹慎，在野外吃冤枉的虧就愈少了。」

王穎教授的野外教學研究，大多以鳥類和大型哺乳類動物為主。1980年代末期，他帶著研究團隊深入玉山國家公園研究山羌、野豬、黑熊、水鹿等野生動物生態。「早期使用麻醉槍是有限制的，所以學生必須靠自己做陷阱、製作活套來捕捉這些野生動物，並設法在牠們身上繫綁無線電發報器以便追蹤。或是透過蒐集物種的標本（例如毛髮、糞便等）、觀察鳥叫聲並利用自動相機追蹤等技術，對其行為、族群變化及對環境的影響，運用電腦或儀器，詳加分析，除此之外，王穎教授還殷殷期盼一個重點，那就是學生要學習如何與原住民相處，了解他們的文化與生活方式，這樣才能算是一名全方位的人才。」

名師出高徒 研究路上無私提攜

如果說，王穎教授是以守護自然、讓萬物生生不息為畢生職志，那麼他培育優質學生的無私心，就像是把「生生不息」的理想昇華為極致，把他對自然的熱情化成最大的影響力，影響無數投身生物界的學子們，多位國家公園的同仁，也都是王穎教授的學生

As wildlife dwell in areas unfrequented by humans, Wang's students must learn to live without hotels but tents and simple food, and always be ready to opt for alternatives when all possible difficulties arise. Wang would ask students, for example: what if the equipment cannot be of use at critical moments? Is changing tires a problem? What if the road ahead is inaccessible when you drive all the way there? Is there any alternative subject elsewhere for study? "Always be prepared, and regrets can be saved."

The subjects of Wang's teaching and research in the wild have mainly focused on birds and larger mammals. In the late 1980s, he had led his team into YSNP to investigate muntjacs, wild boars, black bears, sambar deer. "Due to the restrictions on tranquilizer guns back then, students had to set up traps to catch those wild animals, and place the radio transmitters on them. They also needed to collect animal hairs or feces, record bird sound, and use infrared cameras and other equipment to study and analyze the animals' behavior, population changes, and their impact on the environment." More importantly, Wang also hopes students can be "well-rounded by learning to getting along with aborigines and understand their cultures and lifestyles."

An Selfless, Influential Mentor for Students

As Wang has been fighting for the environment and the "sustainability" of all life forms, he also selflessly strives for the "sustainability" of future talents in the field of biology and wildlife, and instills his passion for the Nature into them, among whom are quite a few staff members of Taiwan's national parks.



王穎教授積極、親力親為的教學方式，帶給學生很大的影響力。圖為王穎教授爬到樹上釘觀察巢箱

Prof. Wang's energetic teaching style made great impression on his students. The picture shows that Wang tried to nail the nest boxes on the tree.



王穎教授總是不辭辛苦地把教室「搬」到野外，只希望能讓學生們真心喜歡自然。圖為2003年王穎教授帶學生進行調查後至九份賞鳥 / 蕭明堂提供

Prof. Ying Wang always takes the trouble to teach students in the wild, in the hope that students can love Nature from the bottom of their hearts. The picture shows that Wang led the students to watch birds in Jiufen in 2003. /Photo provided by Ming-tang Shiao

任職於玉山國家公園管理處企劃課的王佳琪，從小生活在都市的她，卻對玉山懷抱著一種獨特的情感。1997年夏天，就讀大四的她第一次背著大背包在野外過夜，就是跟隨王穎教授前往瓦拉米進行野生動物研究調查。「進王穎教授的研究室以前，除了高中時參加救國團的中橫健行隊以外，我完全沒有登山經驗。在瓦拉米第一次看見藍腹鵝時，自己當時的驚呼聲，到現在我都還記得！」

對於王穎教授的教學風格，王佳琪侃侃而談。王穎教授是一位自我要求嚴格，但個性溫和的人，教學上則以啟發式問答，即便與學生討論到深夜都不會累。「在大二時，在動物行為學課堂上，王穎教授鼓勵我們提出動物行為的假設。有時利用午休時間，放映動物行為的影片；或是帶全班到烏來，記錄鉛色水鵝的擺尾行為。在教學上，王穎教授總會讓學生覺得物超所值，除了一些要趕著去約會的學生，可能會對王穎教授的超時教學感到不適應啦！」

王穎教授總是不辭辛苦地把教室「搬」到野外，讓學生跟著他到石碇皇帝殿、九份基隆山山頂的涼亭上課，上完課再下山。從北台灣、南台灣一路到東部，隨著王穎教授的足跡，在一間又一間的「野外教室」中，養成真正喜愛自然、願意真心付出的學生們。

Chia-chi Wang of the Planning Section at YSNP Headquarters, who grew up in the cities but had a special bond with Mt. Jade, was first introduced to a unique backpacking field trip of wildlife research in the wild at Walami as a college senior in 1997. "I had very limited mountaineering experience before I joined Prof. Wang's team. I can still remember the way I exclaimed when I spotted Swinhoe's Blue Pheasant (*Lophura swinhoii*) at Walami for the first time in my life!"

She's also impressed by Prof. Wang's teaching style. Strict in self-discipline but gentle in personality, he always initiates interactive heuristic dialogues with students and never tires of long or late-night discussions. "Prof. Wang would urge us to raise hypotheses on animals' behavior, while playing videos of such topics during lunch break or taking the class to Wulai to record how the Plumbeous Water Redstart wags its tail. Most students would find his classes and overtime teaching truly worthwhile, perhaps except those who are already late for their date!"

Prof. Wang always takes the trouble to "move" the classroom to the wild, leading students to places like Huangdian in Shihding or hilltop pavilions at Mt. Keelung in Jiufen. From the north to south to east of Taiwan, in each of the "classroom in the wild," students follow Wang and cultivate sincere passion for the Nature.

在火鍋店 修動物行為學

任職於雪霸國家公園保育課的蕭明堂，算是王穎教授「新生代」學生之一，他最能體認到做研究除了先進的設備外，調適因應研究環境變化的態度亦非常重要；要像教授那樣，始終在研究上抱持好奇心，做學問時，要像教授那樣靈活思考，「在修動物行為學時，教授會要我們去火鍋店觀察，什麼樣的人會選擇什麼樣的鍋類、坐在哪個位置、選擇什麼樣的食物……因為人類也是動物，透過這樣的實際觀察的訓練，比只是從文字上理解要有趣的多。」

除此之外，王穎教授在設計期末考時，也會要求學生反向設計實驗題目，因為他希望學生不只是被動學習，要能主動提出問題與假設，而這些訓練，也著實奠定了蕭明堂往後不管在做研究或處事上的基礎，讓他得以能安心面對所有可能碰到的困難，日後投身國家公園的服務行列，這「硬底子功夫」也讓他獲益良多。「老實說，要我舉例在王穎教授身邊學到多少事，真的說不完。」對蕭明堂而言，王穎教授最讓人感動的，就是對學生的支持。「有一次，有學生開教授的車不小心撞壞了，算一算修理費快高達十萬，但教授卻一句責難的話也沒有。他反而安慰學生，就當作裝置在動物身上的衛星發報器沒訊號，無法持續追蹤吧。人生就是如此，不用太在意。」

在蕭明堂跟同學於太魯閣國家公園進行碩士研究的時期，調查工作所需要的梯子老舊，王穎教授知道後，立刻跟王佳琪在山下問了好幾家工具行，終於找到適合的梯子，特地開車從南投送到關原，王穎教授卻在森林觀察巢箱結束下山的途中意外跌斷了4根肋骨。

「當我們去醫院看教授時，他只叫我們趕快回去做研究，別因此耽誤了時間。」

就是那些動容的師生之情，即使在王穎的心裡如同過眼雲煙，但對學生來說卻是此生難以忘懷的恩情。

Ethology Starting from Hot Pot Restaurants

Ming-tang Shiao of the Conservation Section at Shei-Pa National Park Headquarters, a relatively newer student of Wang's, identifies with Wang's philosophy to adapt to the changes of the research environment aside from counting on modern equipment. Shiao is also impressed by Wang's constant curiosity and flexible thinking. "He'd want us to do observations in hot pot restaurants to see what kind of person would sit in which seat and choose what kind of food, and so on. Humans are animals, too, and this training has made ethology much more interesting than going through textbooks."

In final exams, Wang would also ask students to design research questions from opposite perspectives, prompting students to actively pose questions and hypotheses. These have shaped Shiao into a researcher and a civil servant in the national park who'd always be at ease with all kinds of difficulties, all thanks to the tough training given by Wang.

"Honestly, the list of what I've learned from Prof. Wang is endless." Shiao was particularly touched by Wang's support to students. "There's once when a student drove Prof. Wang's car and had a nasty bump that cost NT\$100,000 for repair. Prof. Wang didn't blame the student at all but consoled him, saying: 'Just think of it as a satellite transmitter gone with the animal in vain. It happens. That's how life is.'"

When Shiao once conducted an investigation in TNP as a Master student but the ladder for field research was too old for use, Wang looked through one hardware store after another for a new one, and drove all the way into the mountain just to send it to Shiao. But on Wang's way back from the trip after observing nest boxes in the woods, Wang fell and broke four of his ribs.

"We went to visit him in the hospital, and he only hurried us to go back for study rather than waste time on him."

All those moments and words may be seen as trivial and unimportant to Wang, but will be remembered and cherished by his students for a lifetime.



野外研究工作不易，許多事情都必須自行去克服 / 黃美秀提供
Wild field research is not an easy task; one has to overcome many difficulties. / Photo provided by Meihsiu Hwang

不论文理科 热忱締結師生緣

「一個教授能帶給學生多少影響，就看學生能記得他多少。」現任玉山國家公園管理處解說員印莉敏笑著說，「即使畢業那麼久，我們相聚時所談的話題都是教授。」

談起與王穎教授相遇的緣份，印莉敏覺得非常巧妙。歷史系畢業的她選擇「不務正業」，到王穎教授的研究室面試助理，因著對自然的熱忱，雖非科班出身的印莉敏，仍很幸運地殺出重圍，獲得在王穎教授身邊工作的機會。

擔任助理期間，王穎教授給與印莉敏很大的肯定跟支持，在老師的鼓勵下，印莉敏得以有機會深入原住民部落、了解狩獵習慣，並能認識所喜愛的原住民文化。「我常常在想，如果沒有跟王穎教授相遇過，我現在可能還是只能在跑報社、當記者，而沒有機會走入自己所喜愛的這一塊。」印莉敏感性地說。「王穎教授是開啟我人生另一扇窗戶的大推手。」

開南大學觀光系的劉良力老師、同時也是玉山國家公園解說志工的他，也是王穎教授的學生之一。教授帶學生的「美式風格」讓劉良力印象深刻，除了給

Bond with Students of Liberal Arts Majors

“How much influence a teacher has had on his or her students can be reflected by how much students remember about him or her,” smiled Li-min Yin, an interpreter of YSNP. “After so many years, in each of our college reunion, we talk about nothing else but Prof. Wang.”

The way Yin became one of Wang's assistant was unique because she used to be a history major but opted for a totally different career path by applying for the position as an assistant for Wang. And her enthusiasm for the Nature had won her the opportunity to work for him.

With Wang's encouragement and support, Yin got the chance to go into the aboriginal villages, and know about their hunting traditions and their cultures that she has truly enjoyed. “I always think that had I not met Prof. Wang, I could be just a journalist and never be able to do what I really love to for a living,” thanked Yin. “Prof. Wang opened an important window of my life.”

Liang-li Liu, Asst. Prof. of Dept. of Tourism and Hospitality, Kainan Univ. and a student interpreter of YSNP, had also been a student under Wang, and impressed by Wang's American teaching style that stresses students' independence in planning, experimenting and problem-



從鳥類到大型哺乳類，都是王穎教授的研究範圍 / 王穎教授提供
Wang's research ranges from birds to big mammals. / Photo provided by Prof. Ying Wang

學生空間去計劃與實驗，也很要求學生獨立自主，凡事能自我解決。「所以，從教授實驗室走出來的學生，在界上都有成就，因為那些都是在跟著教授學習時所磨練出來的。」劉良力說。

嚴謹的王穎教授，對學生的支持卻不曾少過，不論是計畫經費與研究獎金，他從無吝嗇，只要學生有需要，他也會在能力所及的範圍內盡可能的幫助。

solving. “Students who actually learned from and survived Prof. Wang's rigorous trainings all have some achievements in different fields.”

Strict as Wang is, he has never been stingy on the project budgets or research grants for students. He always offers as much financial support as he could to those students in need.

喜好野外研究的王穎教授總是帶著學生跋山涉水，以啟發式的教學方式讓學生自己去找答案 / 王穎教授提供

In love with wild field research, Wang always takes students into the deep mountains and remote watersides, hoping this action can encourage his students to find out the answers by themselves. / Photo provided by Prof. Ying Wang



劉良力這麼形容著王穎教授，「他宛如將幼獅推入谷底的雄獅，在谷端用著溫柔的眼神，看著自己的孩子努力上爬；就像是嚴師益友，讓學生們學會該有的堅強，卻也不會失去應有的溫暖與依靠。」

掏腰包買機票 教出台灣黑熊媽媽

「王穎教授對於學生，視同己出。他吃什麼，學生就跟著吃什麼。他也從不擺架子，甚至連你桌上沒有茶水，都會關心幾句。讓身為學生的我，受寵若驚，卻也感到無比的開心。」

研究黑熊頗有心得的黃美秀教授，被原住民部落暱稱為「台灣黑熊媽媽」。但提到她與台灣黑熊的結緣經過，要從1992年、她參與太魯閣國家公園野放小黑熊的活動談起，而這也是王穎教授為她開啟的一扇門。

不論是參與研究計畫、開會甚至是到野外實習，王穎教授總是不斷提供機會，而當時，她還只是個大二生。她跟隨著王穎教授的研究足跡，從東部玉山瓦拉米步道、太魯閣的和平林道，教授甚至自掏腰包買機票，助她一路挺進四川成都的貓熊研究中心。王穎教授所提供的學習機會，可說是黃美秀教授研究路上的重要轉捩點。「王穎教授是研究台灣黑熊的專家，他也是引領我走上台灣黑熊保育這條路的恩師！」黃美秀教授語帶感激的說道。

面對競爭激烈，新秀輩出的學術界，黃美秀教授似有感而發。「如果教師只是一味講求論文發表的數量，而忽略激發學生旺盛的學習熱誠，那麼，將失去教育的本質。」

黃美秀教授表示，每當她在研究工作上遇到挫折時，總不忘向王穎教授請益。「王穎教授就像一個萬花筒，非常有創意，而且有許多先進的見解。他曾對我說，事情沒有絕對的『對』與『錯』，尤其從事研究或保育工作，還要配合天時、地利及人和。因此他總勸我『盡力而為』就好。」

Liu described Wang as “an adult lion that throws its cubs to the bottom of the valley and watches them climb up while giving them due care and support in a strict but gentle style; he always acts both as a teacher and as a friend to his students.”

A Helping Hand to “Black Bear Lady”

“Prof. Wang treats his students as his own children. He eats what students eat, never gets condescending, and always cares about students in all aspects. As his student, I felt so surprised but also delighted by all this.”

So observed Asst. Prof. Mei-hsiu Hwang, also known as the “Formosan Black Bear Lady.” In 1992, thanks to Wang, Hwang was involved in a campaign of releasing the cubs of black bears in TNP, and had her first contact with the black bears.

From research projects, meetings to field trips, Wang always provided Hwang, just a sophomore back then, with opportunities to get involved. He led her to Walami Trail in Yushan and Heping Logging Road in Taroko, and even bought her the flight ticket to the giant panda research center in Chengdu, Sichuan. What Wang had offered contribute to the most important turning point in Hwang’s research career. “Prof. Wang is an expert on black bears as well as a mentor who ushered me to the conservation work of black bears,” thanked Hwang.

This is what Hwang thinks the current competitive academia in Taiwan has lost and neglected. “When teachers only care about the amount of their publications rather than inspire students to learn, then education becomes meaningless.”

Wang has also been like a beacon that Hwang would consult whenever she feels frustrated in her research work. “Prof. Wang is like a kaleidoscope full of creative ideas and insights. He once told me there’s no absolute right or wrong for many things, especially in research or conservation, which require the cooperation of many factors. He always tells me: ‘just do your best.’”

永續發展 管理與利用並重

好一句「盡力就好」。

對王穎教授來說，無論將來是否退休，無論體力還能不能像年輕時那樣，上山下海、沒日沒夜的埋首研究，在他心中，只要能為台灣生態保育盡力，他從不打算休息，持續關注著野生動物的福祉。

在採訪中王穎教授提及，憑藉高度文明及尖端科技，人類已迫使野生動物瀕危。「無可諱言，有些野生動物對人們來說，具有重要的經濟價值。因此談野生動物保育，就必須發展出一套既能保護牠們，又能讓資源有效利用的方法或制度。」

王穎教授進一步解釋，在歐美先進國家可以看見野生動物的地方，就代表著動物資源獲得較好的管理。換言之，透過資源有效管理，既可使受保護的物種得以延續，又不會因無止境擴張其族群數量，變成一物種獨大。

「2004年前，我曾參考國外對於動物資源管理的制度，提議在南投丹大的布農族試辦狩獵，希望藉由制度及規範之下，化暗為明，讓合法狩獵成為一種有效的管理手段。」

根據王穎教授的說法，一旦某個物種超過數量，即可考慮在特定的地區、時間及數量限額下，開放合法狩獵。如能有效利用資源，不但能為當地帶來觀光收入進而改善居民經濟生活，同時將狩獵納入輔導與管理，也可降低野生動物因非法盜獵而瀕危。

就如同學生們對王穎教授的感覺，「他像個萬花筒，研究上隨時保有創意」。保育這條路也絕非一綱一本，可以從更多面向去討論、分析，找出一條最合於現況的路去走。

Sustainability for Management & Utilization

“Do your best.” Well said, indeed.

For Wang, whether or not he will retire someday or remain as energetic as the young researcher he used to be, he'll never stop giving every bit of his efforts to the welfare of wildlife and to Taiwan's wildlife conservation.

Wang has been concerned about many wildlife species endangered by humans' modern civilization and technology. “It's true that some wild animals are of great economic value for humans. So when it comes to the conservation of wildlife, we must develop a mechanism to both protect them as species and reasonably use them as resources.”

Wang explained that when wildlife are more abundant, such as in some developed western countries, it means animal resources are better managed. That is, with effective management, protected species can continue to exist without expanding excessively in number to become overly dominant.

“Before 2004, I had once borrowed similar experience abroad, and proposed a trial hunting system at Danda, Nantou County, hoping to make legal hunting a means of effective management of wildlife resources.”

Once a species overpopulates, Wang explained, legal hunting at designated areas and time and with certain quotas can be considered a win-win solution to not only bring in tourism revenues for the locals but prevent wild animals from becoming endangered by excessive illegal hunting.

Just as “a kaleidoscope full of creative ideas” as his students describe him, Wang believes there shouldn't be just one fixed path for conservation work. More adaptive options can be found through multi-faceted discussions and analyses.



在王穎教授心中，只要能為生態保育盡力，他將永不停息 / 王穎教授提供

To Prof. Wang, as long as he can be of help to Taiwan's ecological conservation, he will never quit. /Photo provided by Prof. Ying Wang

野生動物 生態旅遊潛力點

「我曾在玉山國家公園大分地區，看見樹上有一隻白鼻心，而牠竟離我不過30公分！在福山植物園也曾巧遇山羌，更在奇萊東陵的盤石山，僅咫尺之遠，抬頭就望見一頭水鹿。」

與野生動物的相遇，也可視為二十多年來，台灣國家公園透過棲地重建及改良工作，提供了無數野生動物棲息及覓食的場所，所得到的成果。

「我想說的是，保育工作雖然對所有的物種應一視同仁，但因牽涉到面臨危機的迫切性，難免針對生態地位特殊、瀕臨絕種且稀有的物種，將其列為首要保育的對象。」他舉例，台灣黑熊是玉山國家公園最大型的哺乳類動物，其實只要保護了這個「明星物種」的生存空間和環境，其他物種的生態系也同樣獲得了保護。因為，當民眾了解不同物種之間的生態系是環環相扣的，自然不會產生對保育野生動物有「大小眼」之分的疑慮了。

從梅花鹿、台灣黑熊、黑面琵鷺到其他物種，王穎教授對於台灣環境的關懷腳步，從未停歇。他甚至已規劃好，將來退休後將前往南投丹大地區，繼續協助原住民地區的野生動物資源管理計畫，希望透過資源有效管理的方式，讓來自城市的遊客能夠近距離接觸到野生動物，深度體驗、感受環境教育的內涵，進而影響其價值觀及產生對自然生態的關懷。

或許，我們可以一同期待著，有一天王穎教授所形容的景象能成真：林野處處可見水鹿、山羊、山羌等大型動物的蹤影，讓生態資源的繁榮，不再僅侷限於保育區的範圍內。

編按：受限於版面無法全文刊登，精彩完整報導請上台灣國家公園網站：<http://np.cpami.gov.tw/>。

Wildlife: Potentials in Ecotourism

"I once came across a gem-faced civet on a tree at Dafen in YSNP with just one feet away from me! And also a muntjac in Fu-shan Botanical Garden, and a sambar deer in close distance in Mt. Panshi at the east hill of Mt. Qilai."

All these encounters with wildlife are the results of more than two decades of habitat rehabilitation and improvement for numerous wild animals achieved by Taiwan's national parks.

"Though ideally all species should be treated equal in conservation work, we couldn't but put some particularly rare and endangered species as top priority for conservation due to the level of urgency." But take Formosan Black Bears, the largest mammal in YSNP, for example. As long as the living environment of this well-known species is well protected, it means the entire system for all other animals is, too. When this interrelationship among different species is understood, people will no more suspect the so-called "inequity" in wildlife conservation.

From sika deer, black bears, to black-faced spoonbills, Wang has never stopped his devotion to Taiwan's natural environment. He has planned to help promote the resource management program in aboriginal areas in Danda after his retirement, with the hope of creating a close contact experience with wild animals for urban tourists while instilling the concepts of environmental education in order to raise their awareness in conservation.

Someday, maybe what Wang has envisioned would come true, when all kinds of large animals will be seen everywhere in the forests, indicating the abundance of wildlife resources that exist far beyond conservation areas.

For full-length texts of this article, go to the website of National Parks of Taiwan at: <http://np.cpami.gov.tw/>.

簡介 Profile

王穎 Ying Wang

美國俄亥俄州立大學野生動物學博士，現任國立台灣師範大學生命科學系教授。研究專長為野生動物學、生態行為學，長期致力於台灣梅花鹿之研究與復育工作。

With a Ph.D. in wildlife zoology at the Ohio State University, Wang is currently a Professor of the Dept. of Life Science, National Taiwan Normal University. He specializes in wildlife zoology and behavioral ecology, and has long been dedicated to the research and restoration of Formosan Sika Deer.

