

Caring for Mighty Yushan

在廣袤無垠的自然環境中，許多有志志士肩負起新時代的任務，尋找環境保育、成長共生的契機。 / Peng-guang Chen 攝
In the broad natural environment, men of high aspiration have the mission of seeking the opportunities for mutual growth and development /
by Peng-guang Chen

齊心呵護 巍巍玉山

一群默默守護玉山的無名英雄

The Anonymous Guardian Angels of Yushan

本應該在家裡含飴弄孫的阿公，彎著身子撿拾雜草上的垃圾；剛下部隊的軍官捲起袖子，在成堆的排遺穢物中做分類清除；放棄泡湯的鴛鴦之樂，夫妻倆走了10幾公里的路，只為背回一袋袋的垃圾。

來自不同背景的陌生人，懷抱著相同的初衷或是理想，讓他們在3,000公尺以上的玉山群峰上相遇。如果照俗語所說，成功的男人背後必定有位偉大的女性，那這群保育志工，就是成就玉山之美的背後重要推手之一。

吃力任務 捨我其誰

海拔3,952公尺的玉山主峰雄偉壯麗，風景秀麗雅致，是不論初級或老鳥的登山者都想要攀登的熱門登山景點；玉山國家公園園區內的生態景觀與人文古道風情，則是讓腳步放輕鬆的浪漫步道。每逢假日，總能見得大批山友於玉山園區中穿梭，登高為自己留下一次次的回憶。美景，大家都愛去，但是守護美景，並不容易。

Already a grandpa, he bends down and picks up trash on the grass. An officer who was newly appointed to the army, he classifies through piles of excrement. Instead of enjoying a hot spring bath, a couple walks more than 10 km and returns with bags of trash.

Strangers from different backgrounds, they gather for the same good will or ideal on Yushan. As it goes: there must be a great woman behind every successful man. Then these volunteers are the great women behind a beautiful Yushan.

I Volunteer for this difficult job

The beautiful Mt. Jade Main Peak, 3,952 in altitude, is a must-visit spot for beginner or experienced mountain climbers. The ecology and historical trails in Yushan National Park are relaxing for tourists. Visitors travel in the park and take pictures to mark their beautiful memory during weekends and holidays. However, the beautiful views do not happen just like that.



採訪撰文 Interview & Text/ 連欣華 Hsin-hua Lian 圖片提供 Photo provided / 玉山國家公園管理處 Yushan National Park Headquarters 翻譯 Translator / 鄭淳怡 Chun-yi Cheng 特別感謝 Special thanks to / 玉山保育志工陳大森先生 Yushan conservation volunteers Mr. Da-sen Chen、齊泰榮先生 Mr. Tai-rong Qi、齊立平先生 Mr. Li-ping Qi、劉清煌先生 Mr. Qing-huang Liu、陳玉雲小姐 Ms. Yu-yun Chen、玉山國家公園管理處陳貞好小姐 Mrs. Zhen-yu Chen at Yushan National Park Headquarter



國家公園裡的保育工作，可不是呼個口號、架個網站就沒事了，生態的平衡、環境的自然維持，在執行上都比想像中要困難很多。從入園引導、環境教育與清潔、道路修復、甚至是山難的搜救，沒有一定的體力與耐力是無法負荷的。這樣吃重不支薪的工作，在一般人眼裡，的確吃力又不討好，但就是有這麼一群人甘願地去做。

「要想在國家公園當志工可也不是件容易的事，你要經過面試、初選、體力測驗與教育訓練，有些人想當恐怕都還無法如願呢。」一位志工答道。

要成為一位正式的志工，並不是填了報名表就可以任命，為了要能應對旅客的問題，對於基本的生態知識與環境教育須有充分的了解；攀上幾千公尺的山峰，肩上還要負著幾公斤重的清潔裝備，沒有經過訓練的體力可不行；更別說道路障礙的危難處理與排除，在沒有經過反覆練習的專業訓練下，管理處可也不會讓他們去執行任務。

因此，一個台灣黑熊與台灣藍腹鵲的象徵性標章¹，對他們而言是多麼珍貴的肯定與榮譽。

遙遙千里路 只為掃廁所

清潔廁所，人人都會。如果是拿桶水沖刷著馬桶上的陳年污垢，可以說簡單；但如果輕則一身糞穢，重則跌落深山溪壑，這可就不簡單了。

1. 玉山的志工服務，共分為三個等級，兩年內協勤服務時數滿150小時以上，可頒發台灣藍腹鵲的標章，三年內時數滿300小時以上者，則頒發台灣黑熊標章。

Conservation in national parks is not about slogans or website constructions. Balance of ecology and maintenance of the natural environment are difficult with many demanding and strenuous tasks, which are unfavorable and unpaid. In the eye of ordinary people, it is difficult and tiring. However, some people just willingly volunteer and take on the tasks.

“It is not easy to go through all the interview, preliminary screening, physical tests, and educational training. You may be rejected even if you want to volunteer,” said a volunteer.

To qualify as a volunteer, one must have sufficient knowledge of ecology and environmental education as well as pass the physical tests that make sure you are physically fit to handle heavy cleaning gears and deal with road obstructions. Without professional training, the headquarters will not let them perform the tasks.

Therefore, a badge¹ with the logo of Formosan Black Bear or Swinhoe's Pheasant means recognition and honor.

Travel Thousand Miles to Clean Restrooms

Cleaning restrooms sounds easy but when it involves the possibility of getting feces on the cloths or falling off cliffs, it is not easy at all.

1. Yushan National Park categorizes its volunteers into three levels. Those who fulfill 150 hours or above of volunteer work within two years may be granted medals of *Lophura swinhoii*, while those who fulfill 300 hours or above of volunteer work within three years may be granted medals of *Ursus thibetanus formosanus*.



「黑熊001」、「黑熊002」是在玉山保育志工團中分別對陳大森與齊泰榮的尊稱，宛如其編號的序位含意，兩位資深的志工前輩簡直把高山保育當成了他們下半生的志業，提攜起新進志工，共同去成就山林的清爽。即使，這是個讓人避之唯恐不及的任務。

攀過峭壁，走過斷崖，涉過溪水，中央金礦山屋的生態廁所是他們執行任務的最終目標。為免影響到下游的水源品質，海拔2、3,000公尺的高山廁所並不能像平地以消毒水或大量清水直接沖洗，所以便器只能徒手擦拭；排泄物則是採用自然環保的方式，將收集桶中積滿的排泄物覆上腐植土，待其發酵後，下次上山清理時，再將已發酵的排泄物挖洞掩埋作為有機肥。

這樣的工作，光想像就是一大挑戰。

如果有看過〈貧民百萬富翁〉，相信會對片頭中的廁所有著鮮明的印象，而中央金礦山上的生態廁所，就是如此的設置。

一行人奮力將下方將近2、30公斤的方形糞便收集桶拖出，趨近一看，要分解的還不只是排泄物而已。衛生綿、紙張、塑膠袋，吃完的罐頭，最誇張是還曾經挖出了整顆高麗菜，他們只好將菜掏出曬乾，以不讓這糞池中的「不速之客」佔去太多容量。這些山友的一時之便，卻讓清理上的後續作業的增加了數倍工程。

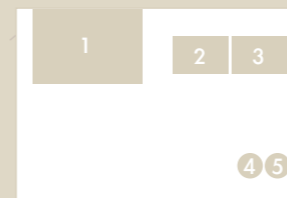
Formosan Black Bear 001 and 002 are the IDs of Dasen Chen and Tai-rong Qi, the two senior conservation volunteers on Yushan who take their volunteer work as a life-time career and help newcomers to maintain a clean mountain even though it involves something most people beg to shun.

Through all the cliffs and valleys, they walk toward their destination, the ecological restroom in Zhongyang Mine Cottage. To avoid undermining downstream water quality, restrooms in a high mountain like Yushan cannot be cleaned with disinfectants or only lots of clean water. The toilets have to be wiped by hands instead while the waste is dumped on humus and used as organic fertilizers once it is fermented.

This task is a big challenge just by thinking.

If you have seen the movie *Slumdog Millionaire*, you will know what the ecological restroom on Zhongyang Mine looks like.

They would drag out the square feces collection barrel of 20 to 30 kg, in which they've found things, besides human waste, such as sanitary pads, papers, plastic bags, empty cans, and even a whole cabbage. So they keep picking out those unexpected substances left behind by mountain climbers that make the cleaning even harder.



1. 玉山塔塔加鞍部登山口 / 何昌穎攝
Tataka Anbu Trailhead / Chang-ying He
- 2-3. 志工們跨過險惡的地形，達成服勤之責。
Volunteers have to cross unfavorable terrains to fulfill their responsibilities.
- 4-5. 台灣黑熊與台灣藍腹鵲的象徵性標章，對志工而言是珍貴的肯定與榮譽。
A badge with the logo of *Ursus thibetanus formosanus* or *Lophura swinhoii* means recognition and honor





種實驗，將其方法與過程記錄下來，對於中央金礦山屋的排泄物分解試驗，這對夫妻可以說幾乎認養了這個工作。

衣沾不足惜 但使願無違

齊立平先生，是一位來自中山科學園區的軍官，假日時卸下繁重的軍裝來到山上服務，有著靦腆笑容的他，至今已做了3年。「說實話一開始接觸中央金礦的廁所時，心理還真的做了很大的一番調適，畢竟連家裡的廁所我都還沒掃得那麼認真。」齊立平笑著說。「但是跟著這些前輩，我只覺得做越多越快樂，上山對我來說都像上了癮似的。」

文化大學大氣科學系的劉清煌教授，因為自小就喜歡爬山，會成為保育志工，是一種自然而然的契機。「以前的愛山，就只是愛爬山；但現在的愛山，就真的是像當成自己孩子般的疼，一瞧見髒亂就總是看不過去，想辦法都要把它整理好。」

談到因為登山道路封閉，造成山友或多或少的反彈情形，劉教授表示，因為自己也愛爬山，所以山友的迫不及待他可以體會；然身歷其中的保育任務，讓他更可以理解管理單位的為難與考量。「其實只要能好好溝通，大家就都可以彼此諒諒。只要想著很單純的一件事，大家都只是愛山。」

good humus because of pre anti-corrosion treatment. The couple records methods and processes of different experiments of their design, and is practically the foster parents of this task.

Clothes Stained, Wish Fulfilled

An officer from the Chung-shan Institute of Science and Technology, Mr. Li-ping Qi volunteers on his days off and this is his third year. With a shy smile, he said, "I personally fought it when I first cleaned the Jhongyang Mine restroom because I've never put that much effort in cleaning my own restroom at home. However, inspired by these predecessors, I'm getting addicted to the work."

Teaching atmospheric sciences, Prof. Ching-hwang Liu has always loved mountains since little and naturally became a conservation volunteer. "I love to climb mountains and I love them like they were my children. I will try my best to keep them clean."

Speaking of the road closures that caused complaints from visitors, Prof. Liu indicates that he understands their eagerness. As a conservation volunteer, he also understands the park headquarters' concern. "Both parties love mountains and with good communication, it will be smoothed out."

志工表示，積了水或尿的糞池，會讓有氧發酵轉為厭氧發酵，而厭氧發酵過程會產生惡臭且未腐熟排遺會污染生態環境。而不屬於糞池內應有的東西，如面紙、衛生紙、濕紙巾、衛生棉、各類塑膠包裝、廚餘等，亦不應該讓它們在糞池中出現，應將之當作自己的隨身物品，一同帶下山。

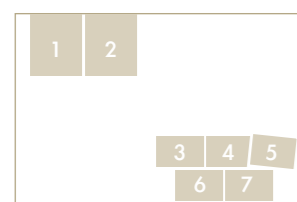
齊泰榮、蘇明珠夫婦是志工團隊的伉儷組之一，陳大森先生曾說，夫婦兩人可以一同上山，並在服務的過程中彼此照顧，在外人看來，是多麼令人羨慕及動容的事。

「中央金礦廁所排泄物處理過程中最重要程序就是翻堆。翻堆，就是指堆肥過程加速發酵最好方法，且也可適時觀察溫度、濕度、pH 值、微生物活動等……。」專業明確的文字，並非出自於研討專用的學術論文，而是由齊泰榮與蘇明珠夫婦所執寫的協勤回報單。一張張的回報單中，或可見他們因為在 100 多公升的糞桶中發現好幾種昆蟲藏匿其間而興奮；或可學習他們發現進口的碎木屑因為經過防腐處理，不適作腐植土的心得分享。他們不斷設計著各

Volunteers indicate that cesspools with water or urine cannot be decomposed because it turns an aerobic fermentation to an anaerobic one that creates stench and the unputrefied feces it results may pollute the environment. Foreign substances that do not belong in the cesspool like those mentioned above should be carried down the mountain by tourists, too.

Tai-rong Qi and Ming-zhu Su are one of the couples on the team. Mr. Da-sen Chen says that it is truly envious and touching to see a husband and his wife care for each other while working in the mountain together.

"The most important step is turning the compost, the best way to expedite fermentation and a good opportunity to observe the temperature, humidity, pH value, and micro-organic activities." These are what Qi and Su would write in their report sheets, among which shows their excitement of discovering different insects in feces barrels more than 100 liters in volume, or their sharing of experience in teach that imported wood chips are not



- 1-2. 走在坍塌的步道排除障礙，只為讓山友能安全地行走。
Clearing obstructions walking on a collapsed trail is to ensure that mountain climbers continue safely.
- 3-5. 志工們的保育工作需有服務性與及時性。
Conservation needs to be service-oriented and time-efficient.
- 6-7. 管理處會定期辦理保育志工的專業教育訓練。
Headquarters will hold professional educational trainings for conservation volunteers periodically.

志工陳玉雲小姐礙於工作關係，無法常上山，於是她利用下班空檔免費幫山友修理背包、裝備，其所求報酬是求山友上山代她撿垃圾，以維護這片山林。「我無法上山，那別人代我去總行了吧。」在汲汲營營的社會中，這樣的舉動讓人聽了倍覺溫馨可愛。

2007年春天某日，陳玉雲與盧素珍志工一起到海拔有3,668公尺的圓峰營地執勤。然「春天後母面」，天氣說變就變。出發時天氣尚可，到達中途點時，交織而來的冰雹與大風大雨讓她們一度長考要撤退或續前。最後責任心戰勝，兩人帶著濕透的裝備來到營地執行勤務。協勤完後，卻因過大的風雨使得回去之路受阻，在無法順利連繫支援的情況下，兩位女子只得在淒風苦雨中渡過漫漫一夜。隔日下山時才發現台18、21線公路因落石而交通中斷。

Volunteer Yu-yun Chen, unable to frequent Yushan due to her busy work, fixes backpacks and gears for mountain climbers, and asks them to pick up trash on Yushan for her and keep it clean. "Since I can't do it myself, I ask others to do it on my behalf." What a touching idea!

One day in spring 2007, Chen and another volunteer Su-zhen Lu worked on the Yuanfong camp site, which is 3,668 in altitude. The weather changed in an instant. It was fair when they set off but hailed with gusts of wind on the halfway. They moved on and arrived on the camp site but their homebound roads were blocked by the heavy rain. Unsuccessful in calling for help, they stayed a long night in the rain and only knew that Routes 18 and 21 were closed due to fallen rocks the next day.



將山疼入心坎裡

「我發現當了志工後，在路上走就從來沒有抬頭挺胸過，因為就一直在路上找垃圾。我不知道要為自己這樣的習慣覺得高興，還是代表山友對步道的保育做得還不是很好。」在公共電視所拍的〈感恩淨土〉裡，林進坤先生的一席話，深深帶進了每個志工的心坎裡。

「我們喜歡山，已經喜歡到為它心疼。」陳大森曾如是說。台灣高山水長的美景背後若沒有這群志工的無私守護，是無法長久維持下來的。然而，生態環境的維護，並不是只有他們的責任。山友們無痕山林的保育觀念若無清楚的建立，再加個幾萬的志工，都是枉然。

一個轉念，一個動作，小小的付出就可激起不凡的火花。

畢竟地球健康了，人類也才能健康，不是嗎？

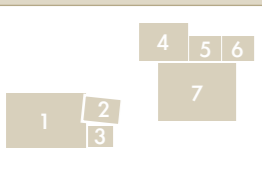
Really Love the Mountain

"I have never walked upright since I became a volunteer because I was always looking for trash. I wonder whether I should be happy for the good habit or be sad for mountain climbers not doing enough for conservation," Mr. Jin-kun Lin once spoke in a TV program for every volunteer.

"We love mountains like they were our children," Da-sen Chen once said. Without these unselfish guardian angels, the mountains in Taiwan couldn't maintain their beauty and cleanness. However, ecological protection takes efforts from everyone. Only when mountain climbers practice conservation will the efforts be really paid off.

An idea, an action, and tiny contribution can be eventually significant.

After all, a healthy earth brings healthy human beings, doesn't it?



- 1-2. 志工們的協助清潔，與公共設施的維修照顧，提昇了政府單位的服務品質。
Volunteers help clean and maintain public facilities, greatly promoting their quality.
3. 志工們的努力亦深受內政部長廖以部長的肯定。
Volunteers' efforts are also deeply affirmative by Minister Liouyi Liao (Ministry of the Interior).
4. 首創生態法清洗乾式廁所便器、地板避免二次污染。
Unprecedented ecological cleaning of toilets in restrooms avoids secondary contamination to the floor
- 5-6. 有機堆肥法處理高山廁所排泄物，減輕大地負擔。
Organic compost is used to process waste in restrooms in mountains, greatly reducing burden to the soil.
7. 再辛苦也能有著可愛笑容。這群保育志工，是成就玉山之美的背後推手之一。
Always a smile no matter how difficult it is. These conservation volunteers are those who make a beautiful Yushan possible.