



FEATHER

飛羽

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中華鳥會第十八屆第二次會員代表大會會議紀錄
2024 黑面琵鷺全球同步普查成果
貓頭鷹耳部的不對稱性：一個常見的小誤會

領角鴉 / 吳志典 攝



領角鴞



領角鴞 小檔案 圖 / 吳志典

領角鴞，學名 *Otus lettia*，英文名 Collared Scops-Owl，體長約 25cm。顏盤灰色，有暗褐色細斑，邊緣黑褐色。眼暗紅色，具粉紅色的細眼圈。有耳羽，內側灰白色、外側黑褐色。眉至耳羽灰白色，有細斑。喙灰黑色，基部稍黃。跗蹠被羽，趾裸露黃褐色。

中等體型的角鴞，在其廣闊的分布區內羽色及鳴聲有很大差異。習慣於人類的存在，有時會在寺廟、房屋和庭院中棲息，特別是在農村地區。體型比東方角鴞及黃嘴角鴞更大、耳羽更粗長；且兩者都沒有環繞臉部的深黑色輪廓。

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- 1500 元 蔡○宸
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52,200 元

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- 義賣品 12,516 元：張瑞麟 6,000 元、匿名 100 元、林○興 720 元、黃○瓊 636 元、葉○德 5,060 元

40,480 元

中華鳥會在此感謝各位的信賴與支持，讓我們能持續堅定地進行台灣野鳥保育工作。年度捐款名單可至本會官網的捐款徵信頁面查詢。



TWBF 捐款徵信

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- 發行人：張瑞麟
- 發行單位：社團法人中華民國野鳥學會
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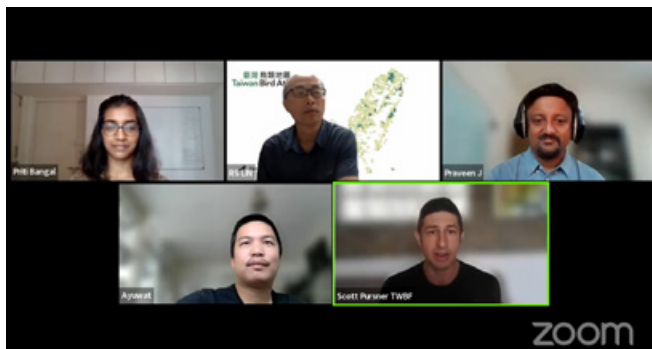
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Inaugural Symposium on eBird in Asia Held Virtually

By TWBF International Affairs Division

On May 19th, 2024, the Taiwan Wild Bird Federation, Taiwan Biodiversity Research Institute, Bird Conservation Society of Thailand, and Bird Count India jointly held a webinar entitled, “From Citizen Science to Conservation Initiate: Examples of eBird In Asia”. The event looked to celebrate the use of eBird and the Merlin ID app as well as explore its uses in different countries and ways to better coordinate efforts in the future. Initially eBird was created as a tool for recording birding checklists in 2002 by Cornell University and the National Audubon Society. However, over the years it has expanded its functions to include helping understand migration patterns, population trends, and breeding habits. This has led to its being used in conservation efforts. The multifunctional app has also spread its wings from New York to across the globe, with Asia being no exception. Two of the countries with the highest checklist counts on eBird are in Asia, with India at number 3 (2.86 million checklists) and Taiwan at number 7 (1.1 million checklists).



Hosts and speakers at the “From Citizen Science to Conservation Initiate: Examples of eBird In Asia” webinar.



Event Poster

The event was hosted by TWBF Director of International Affairs Scott Pursner who welcomed everyone and explained the format of the webinar. There would be three talks from the three eBird teams represented at the event, Thailand, Taiwan, and India. This would be followed by a discussion session led by Priti Bangal of Bird Count India. Also, with over 160 people registering for the event, it took place on Zoom as well as being livestreamed on the Facebook pages of BCST, TWBF, and BCI.

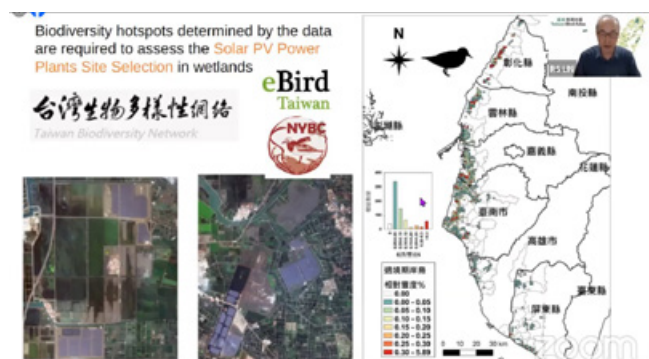
The three presentations represented different regions of Asia and different aspects of eBird and Merlin use. Discussing eBird and Merlin use in Thailand was Ayuwat Jearwattanakanok, a member of the board of BCST and an active eBird user. His talk was entitled “Promoting eBird and merlin Bird ID in Thailand”. It introduced eBird and Merlin Bird ID as important tools for citizen science, not just locally, but globally as well. He also discussed how Thai birding communities to use them not just for research and citizen science, but also to promote wildlife management and policy planning and development in Thailand. Ayuwat shared the example of how using eBird data, conservationists were able to show the government that the Red-whiskered Bulbul, though currently legally protected, was mainly found outside of protected areas. This meant it should not be removed from the government protected list due to the threats posed by trappers who would want them for the pet trade. Also, BCST is now working on promoting eBird and Merlin Bird ID use in Thailand through the creation of a Thailand pack and having Thai language versions.



Ayuwat shares how eBird is promoted and used for in events in Thailand.

The next speaker was Dr. Lin Ruey-shing, a researcher and division chief at the Taiwan Biodiversity Research Institute. The title of his presentation was, “Bridging Birds and People: The

Growth and Challenges of eBird Taiwan.” During his talk he focused on how Taiwan historically began birdwatching back in the 1960s, and the first official record of a bird sighting dates back to 1972. However, since then, birdwatching and the recording of checklists has become a popular activity in the country. Prior to the launch of eBird Taiwan in 2015, people would submit their checklists to the Taiwan Bird Record Database which was managed by the TWBF. Now Taiwan has risen to number 7 globally for checklists on eBird. This is due in part to the integration of Bird Record Database data to eBird. It is also due to the dynamic eBird Taiwan team and of course the Taiwanese eBirder community. eBird now plays a big role in citizen science projects and even government spatial planning. Some examples of this include how data from eBird was used to stop solar panel farm installations from being placed in Tainan City. Lastly, he discussed how Taiwan is engaged with creating its first Bird Atlas using eBird.



Dr. Lin of TBRI explains how eBird data was used in influencing the Taiwan government’s spatial planning for solar power installations.

Lastly, speaker Praveen J from Bird Count India performed the talk, “Charting Birdscapes in India: A Decadal Experience with eBird and Citizen Science.” In it he introduced the geography and demographics of India and how this affects the birds and birdwatching that take place there. India has an long history of ornithological documentation but

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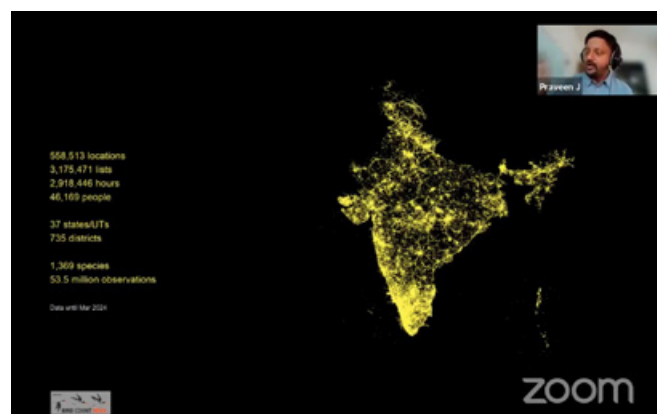
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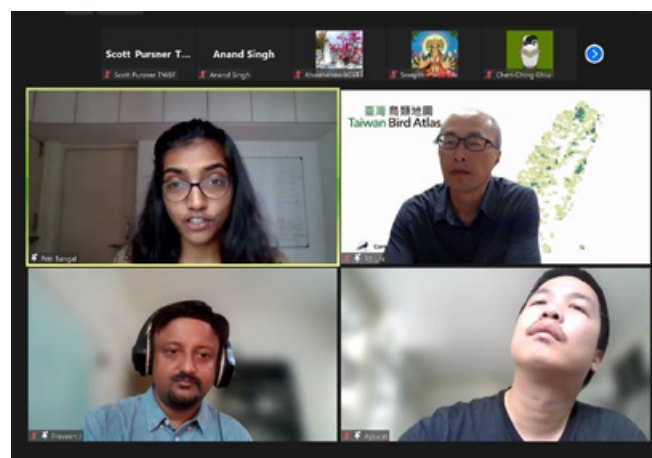
formal bird surveys at a national scale have still not taken place due to the size and complexity of the country. In 2013, several groups and organizations came together under the umbrella of Bird Count India to encourage birdwatchers to document birds in a more systematic way. To accomplish this, eBird was the chosen tool. Since then, eBird has taken off exponentially, covering all states and districts in the country with a consolidated contribution of nearly 50 million records. The talk also introduced viewers to various successes and challenges in data generation, maintaining data quality, and using the data generated to inform science and conservation. One of the major accomplishments has been the use of eBird in publishing two State of India's Birds reports, one in 2020 and one in 2023.



Praveen J discusses a map of eBird and eBird use in India.

Lastly, during the discussion, Priti presented questions from the audience. Topics included the use of historical data and how to ensure the quality of data produced by citizen scientists. She also asked speakers of ways in which they think different countries which use eBird could coordinate and work together. Some of the ways mentioned included promotion of eBird, monitoring and sharing information on migratory species, holding sessions to discuss strategies for different aspects of eBird, and working with each other to improve products and software. Everyone agreed that this

session was a good first step towards deepening cooperation in Asia on eBird and also conservation of bird species in the region.



Priti of BCI hosts the discussion session with the three speakers.

中華民國野鳥學會第十八屆 第二次會員代表大會 會議記錄

時間：113 年 6 月 01 日（星期六）13:30~15:30

開會地點：桃園市八德區大千里民活動中心（桃園市八德區重慶街 36 號）

主席：張瑞麟理事長

出席人員：各團體會員之會員代表、第十八屆理監事

列席人員：各團體會員年度表揚之優良義工、秘書處專職

出席狀況：應到 69 人，實到 58 人（含委託 11 人），請假 11 人

紀 錄：邱柏瑩

議 程：

一、主席致詞（略）

二、來賓致詞（略）

三、優良義工表揚：

（一）頒發各團體會員 112 年度優良志工感謝狀，各團體會員代表上台領獎。

四、會務報告

（一）宣讀 112 年第十八屆第一次會議紀錄

（二）報告 112 年第十八屆第一次會議決議執行情形

（三）會務報告——秘書處 112 年工作執行報告秘書處 112 年工作執行報告。

五、提案討論

（一）提案一

案由：本會 112 年度收支結算表及資產負債表，提請審議。

說明：1. 本會 112 年度收支結算係配合年度工作計畫，並依政府規定辦理。

2. 112 年度收支結算表及資產負債表業於 113 年 04 月 18 日第十八屆第四次理監事聯席會審查通過。

3. 112 年度收支結算表及資產負債表請參閱大會手冊。

4. 擬於通過後，呈報內政部核備。

決議：照案通過。

（二）提案二

案由：本會 113 年度工作計畫草案，提請審議。

說明：1. 本會 113 年度工作計畫草案業於 112 年 12 月 18 日第十八屆第三次理監事聯席會審查通過。

2. 擬於通過後交秘書處執行。

決議：照案通過。

(三) 提案三

案由：本會 113 年度收支預算表，提請審議。

說明：1. 本會 113 年度收支預算業於 112 年 12 月 18 日第十八屆第三次理監事聯席會審查通過。

2. 113 年度收支預算表請參閱大會手冊。

3. 擬於通過後，呈報內政部核備。

決議：照案通過。

六、臨時動議：

(一) 提案一

提案人：金門鳥會代表方冠傑

案由：關於金門縣野鳥學會團體會員會費研商議案。

說明：1. 金門縣野鳥學會並未收會員會費，每年為代收總會年費極為困擾，也造成會員一些誤解，為減輕本會收費志工的壓力，請研擬擬好辦法由總會自行收費。

2. 本會每年代總會收繳會費將近三萬元，全部都上繳給總會，為增加會員繳交意願，本會得自行跟總會購買月曆送給繳費會員，增加本會每年財務負擔，而會員領月曆還誤認為是總會送給繳費會員的。

決議：提交理監事會議進行討論。

七、散會 15:30

八、簽到簿

社團法人中華民國野鳥學會 第十八屆第二次會員代表大會 簽到表			
單位名稱	代表姓名	簽名	備註
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	陳樹德	陳樹德	
社團法人 嘉義市野鳥學會	沈錦雲	沈錦雲	
	鄭 偉	鄭 偉	
社團法人 台中市野鳥學會	李紹賢	李紹賢	
	曾宗龍	曾宗龍	
社團法人 台南市野鳥學會	張淑芳	張淑芳	
	徐麗霞	徐麗霞	
社團法人 桃園市野鳥學會	盛士達	盛士達	
	石成德	石成德	
社團法人 桃園市野鳥學會	謝維華	謝維華	
	吳佳容	吳佳容	
社團法人 桃園市野鳥學會	黃培雲	黃培雲	
	劉育昇	劉育昇	

單位名稱	代表姓名	簽名	備註
社團法人 桃園市野鳥學會	林安勇	林安勇	
	陳瑞福	陳瑞福	
社團法人 新竹市野鳥學會	陳漢哲	陳漢哲	
	曾國基	曾國基	
苗栗縣 自然生態學會	蔡晉恩	蔡晉恩	
	廖榮興	廖榮興	
社團法人 台南野鳥學會	劉勝紅	劉勝紅	
	林則男	林則男	
社團法人 台南野鳥學會	沈育庭	沈育庭	
	江亞賓	江亞賓	
嘉義縣野鳥學會	張淑如	張淑如	
	陳淑安	陳淑安	
嘉義縣野鳥學會	陳淑安	陳淑安	
	張清遠	張清遠	
雲林縣野鳥學會	魏慶忠	魏慶忠	
	蔡中文	蔡中文	
雲林縣野鳥學會	陳富榮	陳富榮	
	陳富榮	陳富榮	

單位名稱	姓名	簽名
南投縣 野鳥學會	鄭容敏	鄭容敏
	曾時珍	曾時珍
社團法人 彰化縣 鳥會學會	魏增彬	魏增彬
	許仁奇	許仁奇
社團法人 彰化縣 鳥會學會	黃也龍	黃也龍
	李春霖	李春霖
雲林縣 野鳥學會	羅瑞昌	羅瑞昌
	張淑如	張淑如
雲林縣 野鳥學會	陳樹德	陳樹德
	簡梓樹	簡梓樹
嘉義縣 野鳥學會	王振芳	王振芳
	鍾金龍	鍾金龍
嘉義縣 野鳥學會	蔡中文	蔡中文
	吳書銘	吳書銘
嘉義縣 野鳥學會	林水錫	林水錫
	吳河南	吳河南
嘉義縣 野鳥學會	江文政	江文政
	吳富平	吳富平

中華鳥會第 18 屆第 2 次會員代表大會 及會後參訪花絮

文 **By** 邱柏瑩 中華鳥會秘書處 · 圖 **By** 潘森識、呂翊維、邱柏瑩 中華鳥會秘書處

時間過得真快，又到了每年一次的會員代表大會，首先感謝桃園鳥會的吳豫州榮譽理事長願意大力協助舉辦會議，因此我們第一次前往桃園八德大湳森林公園內的里民活動中心舉辦本次的會員代表大會。

確定會議地點後，接下來就要請各團體會員提供會員代表名單、優良志工名單、更新自家的組織表資訊等等，事前工作非常繁雜，等到收齊各方相關資訊，就可以開始製作大會手冊、製作 2023 優良志工布徽及獎狀、確定隔天賞鳥參訪行程、住宿地點、晚上聚餐地點、紀念品…等許多事前作業，大約要提前 1 個月開始慢慢進行規劃，才能順利舉辦會員代表大會。

我們第一次進入大湳森林公園，公園內竟有防蚊液供民眾使用，真是貼心又實用的設計，因為小黑蚊真的很多，建議進入公園內的民眾要事先進行防蚊防護，不然很容易手腳都變成紅豆冰。

最後感謝桃園鳥會大力協助本次會議，支援人力、地點，讓本次會議圓滿結束。

讓我們透過活動照片，瞭解本次會議的花絮吧！

6/01 會員代表大會照片



會員代表簽到——茄苳生態學會代表



會員代表簽到——花蓮鳥會代表



紀念品——臺灣特有種海報（32 種）



張瑞麟理事長開場



優良志工表揚——宜蘭鳥會優良志工領獎



優良志工表揚——基隆鳥會優良志工領獎



優良志工表揚——台北鳥會優良志工領獎



優良志工表揚——桃園鳥會優良志工領獎



優良志工表揚——新竹鳥會優良志工領獎



優良志工表揚——台灣野鳥協會優良志工領獎



優良志工表揚——雲林鳥會優良志工領獎



優良志工表揚——彰化鳥會優良志工領獎



優良志工表揚——嘉義縣鳥會優良志工領獎



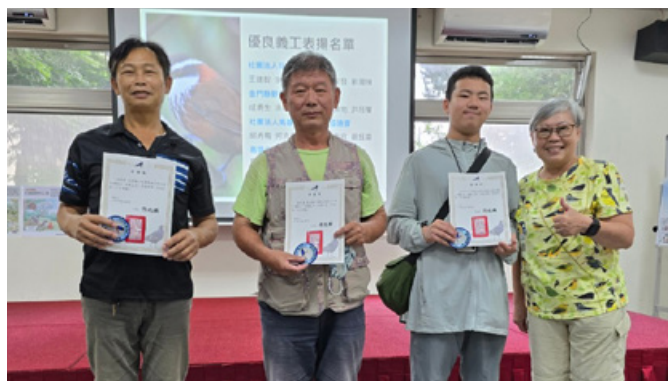
優良志工表揚——嘉義市鳥會優良志工領獎



優良志工表揚——台南市鳥會優良志工領獎



優良志工表揚——高雄市鳥會優良志工領獎



優良志工表揚——茄苳生態文化協會優良志工領獎



優良志工表揚——
花蓮鳥會優良志工領獎



秘書長進行年度工作報告



優良志工表揚——
金門鳥會優良志工領獎



認真聆聽的會員代表們



全體大合照

今年特地選在桃園市舉辦會員代表大會，主要是希望讓全國會員代表和理監事們能夠了解桃園鳥會現在著重於經營八德區的大湳森林公園，透過下午的參訪行程，瞭解桃園鳥會目前的經營狀態及現況，當天特地邀請吳豫州老師來分享他們認養大湳公園的艱辛歷程與最後的成果，日後桃園鳥會會館可能將搬遷至公園停車場旁的前軍用設施內（目前荒廢中，待整修）！之前有聽說園區內有 6 隻黃鸝，希望下午參觀園區可以看到或聽到黃鸝，但真的很可惜，當天下午大夥走了 1 小時都沒有發現黃鸝蹤跡。

第二天 (6/02) 上午八點，天公不作美一直下雨，我們到大溪的鴛鴦池棲地參訪，先至福德宮集合，分發解說耳機聽吳豫州老師簡單介紹廟宇由來，才知道目前桃園鳥會會館（八德），是當地的一位退休校長，非常認同桃園鳥會對於鳥類保育的貢獻，免費租給桃園鳥會 7 年，對桃園鳥會有很大的幫助。鴛鴦池棲地之前原本是一個休閒生態農場，但後來因為土地問題荒廢至今，約十幾年前桃鳥鳥友發現，冬天時常有一大群鴛鴦會抵達該水池度冬，因此開啟了桃園鳥會長期觀察紀錄該地的鳥況；大溪鴛鴦池為了保護鴛鴦棲息，目前並沒有對外開放，我們可以進去參觀是因為大部分鴛鴦已飛離，該日上午僅記錄到 2 隻鴛鴦，因此特別開放參觀，我們期待未來該區進行保育規劃，在特定時段內陸續開放少部分區域，讓學生能進行鳥類生態教育推廣活動，使得生態與永續利用能共存。

最後感謝桃園鳥會的大力協助，讓本次會員代表大會能夠順利完成，期待下次再相逢，一起賞鳥趣！

6/01 參觀大湳森林公園與 6/02 大溪鴛鴦池棲地參訪



參觀大湳森林公園



很漂亮的竹編造型野外景觀台



室內參訪之大合照



6/02 戶外觀察前廟集合，行程說明



下大雨，大家撐傘進行鴛鴦池棲地參訪



排隊觀察鴛鴦棲息的水池環境



鴛鴦棲地的保護與現況說明



園區廢棄游池前，吳豫州老師解說中



參訪人員合照

鴛鴦池棲地現況





2024 黑面琵鷺全球同步普查成果

文・圖  中華鳥會秘書處

黑面琵鷺全球同步普查為長期監測全球黑面琵鷺度冬族群的趨勢與狀態，每年一月期間定期舉行，由香港觀鳥會 ([link is external](#)) 發起，串聯東亞與東南亞各地同部進行調查，涵蓋台灣、南韓、日本、中國、香港、澳門、越南、泰國、柬埔寨、菲律賓及馬來西亞等。台灣是黑面琵鷺最主要的度冬棲地，由中華鳥會聯繫全台各縣市的鳥會調查員協力完成同步普查的工作，每年定期公告成果。

「2024 年黑面琵鷺全球同步普查」結果出爐，全球黑面琵鷺的數量共計 6,988 隻，相較去年增加 355 隻，總數持續成長並突破紀錄。而臺灣作為黑面琵鷺最重要的度冬區，今年共調查到 4,135 隻，比起去年減少 93 隻，其中嘉義、臺南、高雄等主要分布區數量略減，濁水溪口及屏東的數量有明顯增加，顯示黑面琵鷺有往外擴散移動的現象。近年黑面琵鷺救傷通報案例有明顯增加的趨勢，可能與棲地減少與環境條件改變有關。

全球數量持續成長，臺灣持平略減少

「黑面琵鷺全球同步普查」定期於每年 1 月進行，由香港觀鳥會聯繫各國進行同步調查。今年的「2024 年黑面琵鷺全球同步普查」在 1 月 20 日至 21 日舉行，臺灣的普查工作由中華民國野鳥學會統籌，與全臺超過百名的調查員共同合力完成，並由農業部林業及自然保育署的「國土生態保育綠色網絡建置計畫」的經費支持。

今年全球普查共記錄有 6,988 隻的黑面琵鷺，族群數量持續成長已近七千隻，包含臺灣共記錄 4,135 隻 (59.2%)、中國 1,630 隻 (23.3%)、日本 702 隻 (10.1%)、香港和深圳 (后海灣) 375 隻 (5.4%)，顯示臺灣仍然是黑面琵鷺最重要的度冬區。今年的數量共增加 355 隻，源自各主要度冬區的數量都有成長，相較之下，臺灣的總數維持在四千隻以上，卻比起去年減少 93 隻 (2.2%)，是自 2018 年全球普查以來，首次遭遇數量減少的狀況。

核心區數量略減少，個體往南北擴散

臺灣度冬的黑面琵鷺超過九成的數量集中於臺灣西南沿海地區，其中臺南數量最多，有 2,088 隻，其

它各縣市由多至少則依序為嘉義 887 隻、濁水溪口 454 隻（彰化雲林交界）、高雄 423 隻、屏東有 121 隻、雲林 93 隻、宜蘭 44 隻、金門 10 隻、新北 6 隻、澎湖 5 隻、彰化 3 隻及新竹 1 隻，共 12 個縣市有紀錄。

與去年相比，度冬核心區如臺南減少 191 隻、嘉義減少 60 隻、高雄減少 27 隻，而北邊的濁水溪口增加 94 隻，南邊的屏東則增加 105 隻，顯示黑面琵鷺個體有往北邊與南邊擴散移動的現象。

黑面琵鷺的棲地問題須持續關注

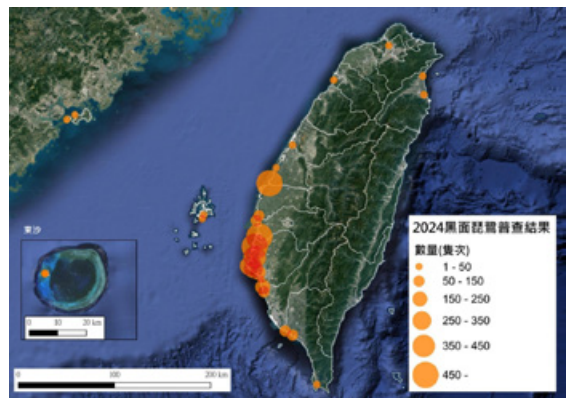
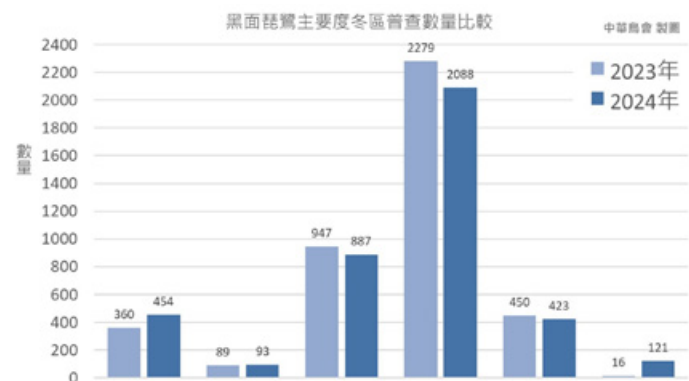
今年黑面琵鷺數量的減少並非普查期間才觀察到的現象。根據台南市野鳥學會與台灣黑面琵鷺保育學會自 2023 年秋季起每兩周的例行調查中，發現黑面琵鷺剛抵達嘉義與臺南時的數量有明顯的高峰，但隨著時間推移，數量逐漸減少，甚至低於去年的平均值。直到今年普查期間，數量才有明顯回升，但仍明顯低於去年的總量。

另一方面，根據台南市野鳥學會和農業部生物多樣性研究所受理的救傷案件統計，2023 年 9 月至 2024 年 4 月共救援 86 隻黑面琵鷺（臺南 73 隻、高雄 9 隻、嘉義 2 隻、宜蘭 1 隻、屏東 1 隻），其中 25 隻經救援後已野放，目前尚有 2 隻正在療養，救援案件較過往明顯增加，經檢驗多為肉毒桿菌中毒，可能反映棲地品質問題或其他未知因素導致黑面琵鷺感染疾病。

此外，魚塭是黑面琵鷺重要的覓食區，收成後的曬池作業是各類水鳥重要的覓食來源，近年林業及自然保育署已實施生態服務給付推動方案，鼓勵漁民提供更多友善鳥類的覓食環境。但臺南七股地區已有部分魚塭開發為漁電共生型光電，棲地的縮減仍可能讓黑面琵鷺轉移覓食區，進而影響族群數量變動。

以上各種因素，可能都是影響今年普查數量暫緩成長的原因，同時這也凸顯長期監測的重要性，需要持續透過普查來了解黑面琵鷺族群變化與棲地環境間的關聯性。我們鼓勵鳥友或關心環境的朋友多利用 eBird、iNaturalist 等公民科學平台進行記錄。若有目擊疑似受傷黑面琵鷺的情況，請直接向當地縣市政府的保育主管單位通報，以便及早發現問題。

合作夥伴：感謝基隆市野鳥學會、台北市野鳥學會、桃園市野鳥學會、新竹市野鳥學會、苗栗縣自然生態學會、臺灣野鳥協會、彰化縣野鳥學會、雲林縣野鳥學會、嘉義市野鳥學會、台南市野鳥學會、台灣黑面琵鷺保育學會、台南市生態保育學會、高雄市野鳥學會、茄苳生態文化協會、屏東縣野鳥學會、宜蘭縣野鳥學會、花蓮縣野鳥學會、台東縣野鳥學會、金門縣野鳥學會、澎湖縣野鳥學會等單位協助調查
補助單位：農業部林業及自然保育署、台江國家公園



Decrease in Black-faced Spoonbill Numbers Emphasize Need for More Habitat Monitoring

By TWBF International Affairs Division



Photo: Philip Kuo

Results of the 2024 Taiwan Black-faced Spoonbill Census revealed a total of 4,135 spoonbills wintering in Taiwan proper and its outlying islands, down 93 from the year before. With annual census numbers consistently showing 50% to 60% of the global population, Taiwan is one of the most critical wintering areas for the iconic and globally threatened species. This year's survey took place January 19-21. Supported by the Taiwan Forestry and Nature Conservation Agency, the Taiwan Wild Bird Federation organized the event in Taiwan, working with birders, bird societies, government agencies, and other groups from all over the country to conduct the census. In recent years, over 100 surveyors have been required to accurately conduct the count.

Global Population Continues to Grow, Taiwan Numbers Remains Stable with Slight Decrease

The count was done in coordination with the 2024 International Black-faced Spoonbill Census. This event, organized by the Hong Kong Bird Watching Society, sees participating groups representing all of the migratory waterbird's range take part. With a total of 6,988 birds recorded, an increase of 355 individuals from 2023, it shattered the global record set just last year. Taiwan once again had the largest number, representing 59.2% of the total. However, it decreased by 93 individuals compared to last year, marking the first decline since 2018. The next highest totals came

from China with 1,630 (23.3%), Japan with 702 (10.1%), and Hong Kong and Shenzhen (Houhai Bay) with 375 (5.4%).

Results once again underscore Taiwan's continued importance as a wintering area for the species. Over 90% of Taiwan's wintering Black-faced Spoonbills were concentrated along the southwestern coast, with Tainan City having the highest number at 2,088 individuals. It was followed by Chiayi County with 887, the mouth of the Jhuoshui River (between Changhua and Yunlin counties) with 454, Kaohsiung City with 423, Pingtung County with 121, Yunlin County with 93, Yilan County with 44, outlying Kinmen Island with 10, New Taipei City with six, Penghu County with five, Changhua County with three, and Hsinchu County with one. In total, 12 counties and cities recorded Black-faced Spoonbills during this year's census.

Compared to last year, in the core wintering areas of Tainan City, Chiayi County, and Kaohsiung City, numbers decreased by 191, 60, and 27 individuals, respectively. Meanwhile numbers recorded along the northern bank of the mouth of the Jhuoshui River and in southern Pingtung County increased by 94 and 105, respectively. This indicates a northern and southern dispersion of individuals.

Habitat-related Issues Require More Monitoring and Conservation Efforts

The decrease in Black-faced Spoonbill numbers this year was not a phenomenon observed only during the global census period. Each year from October to May, the Wild Bird Society of Tainan and the Taiwan Black-faced Spoonbill Conservation Association conduct surveys of Black-faced Spoonbills every two weeks in the area spanning

Yunlin County to Kaohsiung City. Data from the Fall of 2023 showed the number of birds counted in Chiayi County and Tainan City was very high after their arrival in Taiwan, then gradually decreased to numbers lower than last year's survey average. It was only during the 2024 Census that numbers recorded rebounded. Still, this year's totals were lower than last year.

One factor behind the change could be habitat-related. In recent years, there has been a major push towards integrating photovoltaics with aquaculture in Tainan City's Chiku District. As a result, the number of fish ponds available to waterbirds has been reduced since the fish ponds get covered over with solar panels during this process. However, in the traditional practice of aquaculture in southwestern Taiwan, drying fish ponds serve as important foraging areas for many waterbirds, including the Black-faced Spoonbill. The loss of these mean that birds must search for new foraging and roosting grounds, thereby affecting population numbers. To encourage wildlife-friendly agriculture, the Forestry and Nature Conservation Agency initiated the Endangered Species and Important Habitat Ecological Service Payment Promotion Plan in 2021. Land-based aquaculture ponds as eligible for subsidies in the plan. As part of the scheme, from October to April, after the fish harvest, aquaculturists must maintain conditions such as appropriate water levels (below 20 cm) for at least one month to ensure they can be used by waterbirds. Should they meet the requirements, farmers can earn up to 10,000 yuan per hectare. In both 2022 and 2023, Tainan City had approximately 200 ha of bird-friendly fish ponds.

Disease related to habitat quality could also play a role. According to statistics from the Wild Bird Society of Tainan and the Council of

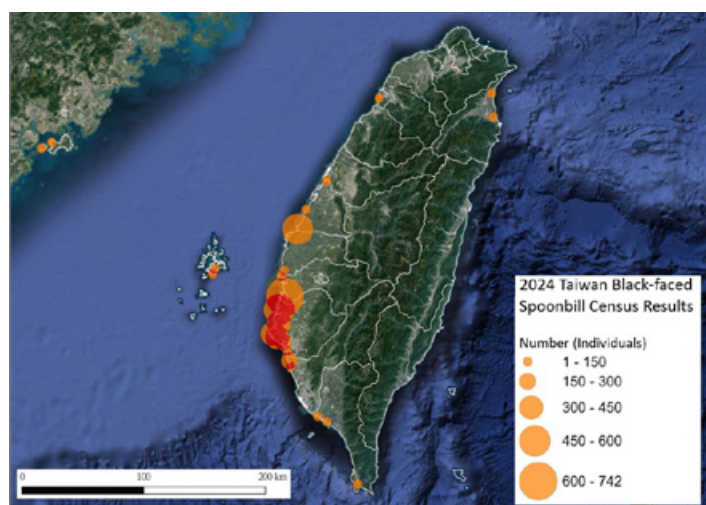
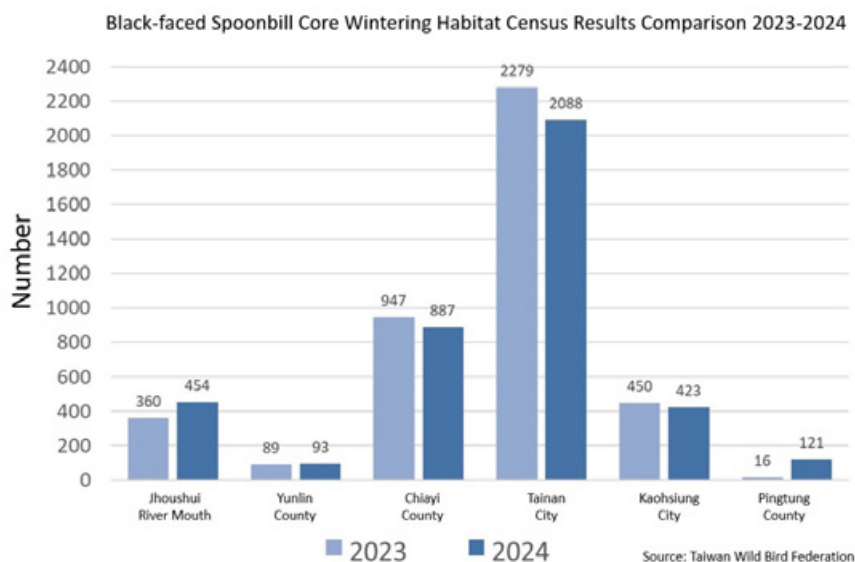
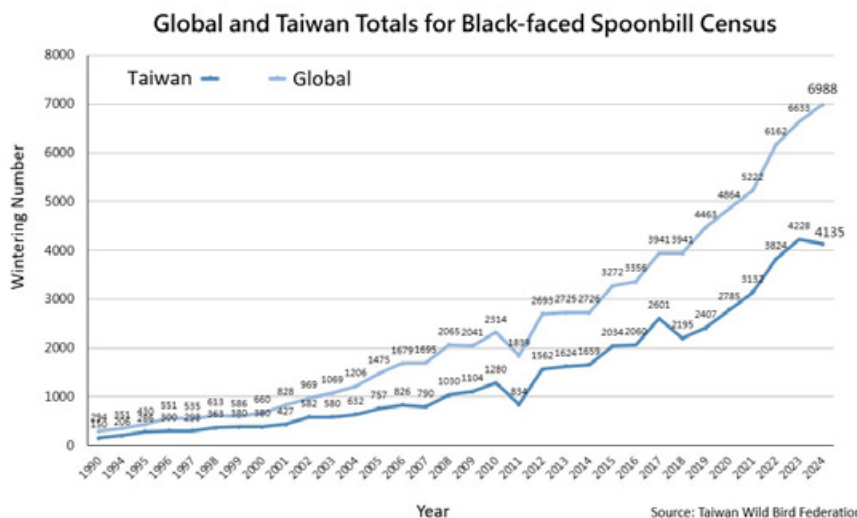
Agriculture's Taiwan Biodiversity Research Institute, from September 2023 to April 2024, a total of 86 Black-faced Spoonbills were rescued (73 in Tainan, 9 in Kaohsiung, 2 in Chiayi, 1 in Yilan, and 1 in Pingtung). Of these, 25 have been released back into the wild, while 2 are currently still being cared for. The increase in rescue cases, many of which were due to botulism poisoning, may reflect habitat quality issues or other unknown factors, requiring further examination.

To better understand the reasons for these population changes and habitat quality issues as well as properly address the rise in botulism cases, long-term monitoring and working with stakeholders are required.

Birdwatchers and nature enthusiasts are encouraged to record their observations using citizen science platforms such as eBird and iNaturalist. Also, if Black-faced Spoonbills are seen either injured or in a weakened state, it should be immediately reported directly to local conservation authorities.

Partners : Special thanks to the Wild Bird Society of Keelung, Wild Bird Society of Taipei, Taoyuan Wild Bird Society, Wild Bird Society of Hsinchu, Miaoli Natural Ecology Society, Wild Bird Association of Taiwan, Changhua Wild Bird Society, Wild Bird Society of Yunlin, Wild Bird Society of Chiayi City, Wild Bird Society of Tainan, Taiwan Black-faced Spoonbill Conservation Association, Wildlife Conservation Institute of Tainan City, Kaohsiung Wild Bird Society, Chiehting Ecological and Cultural Association, Wild Bird Society of Pingtung, Wild Bird Society of Yilan, Wild Bird Society of Hualien, Wild Bird Society of Taitung, Wild Bird Society of Kinmen, Wild Bird Society of Penghu, and other groups that assisted with the census.

Subsidy Units : Forestry and Nature Conservation Agency, Ministry of Agriculture and Taijiang National Park



台北市野鳥學會 文圖 BY 台北鳥會

「守護飛翔」募資計畫回饋好禮——都市三寶鳥襪



FASHION
COZY

都市三寶
舒適長筒棉襪



CASUAL

社團法人 台北市野鳥學會
WILD BIRD SOCIETY OF TAIPEI

#都市三寶鳥
#猜猜我是誰

保育也可以很時尚！
讓三寶鳥襪陪你出門賞鳥
參與集資
讓更多鳥兒重返藍天
<https://reurl.cc/kOgjk3>



加入募資計畫
一起守護飛羽寶寶

吸汗舒適棉襪，吸收爬山、步入濕地辛苦的腳汗，彈性舒適只為了觀賞美麗鳥羽身影的你快樂賞鳥，時尚又可愛，和三寶一起賞鳥保育去！穿上三寶鳥襪，成為都市傷鳥的守護者：<https://reurl.cc/MOVnoX>

在公園跳躍的「白頭翁」；路上成群嬉鬧的「麻雀」；在樹上築巢的「綠繡眼」；騎車、搭車，或在街頭散步或是趕路時，牠們是最常在都市中飛舞歌唱的三寶鳥，卻也是救傷中心的常客！！

民眾時常會送來受傷的三寶們，有時候會拾獲學飛而落巢的小寶寶，不論是哪种情況，紀錄拾獲地點、聯絡野鳥救傷中心，訓練野放之後，才能讓牠們回到原本的居住地、重回藍天唷！

透過三雙襪子，也可以多一點對環境的關心跟認識，一起支持守護飛翔計畫，認識都市與自然鳥羽的連結，都市生態圈由我們自己守護～

2024 大雪山賞鳥大賽

Dasyueshan Bird Race

9/6 (五) 9/7 (六)

活動地點：大雪山國家森林遊樂區及聯外道路、
東勢林業文化園區

8/23 (五)

生物多樣性棲地保育研習

研習地點：農業部林業及自然保育署臺中分署
臺中市豐原區南陽路逸仙莊1號

9/21 (六)

「森聲不息賞鳥趣」-

東勢林業文化園區中、小學賞鳥比賽

活動地點：東勢林業文化園區



指導單位：農業部林業及自然保育署
承辦單位：社團法人台灣野鳥協會

主辦單位：農業部林業及自然保育署臺中分署
協辦單位：社團法人中華民國野鳥學會

報名電話：04-22600518
社團法人台灣野鳥協會

水雉生態教育園區「2024 生態主題講座」

2024生態主題講座

野生動物給我們的啟示



田蟹米的保育經驗分享
7/28王正安



動物沙龍的真相
8/18李璟泓



蜉在溼地
9/1李宜龍

官田圖書館

敬請期待



水雉生態教育園區



國土生態綠網



一起成為布袋鹽田志工吧！

2024布袋鹽田志工招募

國際鳥盟認定的重要野鳥棲息地
東亞澳洲候鳥遷徙的重要中繼站
全台度冬水鳥數量居冠

保護濕地，共同努力

加入我們的行列
為濕地生態和水鳥保育貢獻一份力量

布袋鹽田濕地位於臺灣最大的嘉南平原沿海區域，它也是國際鳥盟認定的重要野鳥棲息地，更是東亞、澳候鳥遷徙重要的中繼站及度冬區。冬季度冬的水鳥數量居全台之冠，大量的水鳥是布袋鹽田冬季的日常居民，迷人的黑面琵鷺更是冬季常客；春夏之際有東方環頸鴿、高蹺鴿、二級保育類小燕鷗以及小白鷺、夜鷺等在這個區域繁殖。

鳥是布袋鹽田濕地重要的自然資源，牠們需要廣闊的棲息地，而沿海地區太陽能光電的開發令水鳥可用的棲息地逐漸減少，有鑑於此，高雄鳥會自 2019 年開始無償認養布袋鹽田濕地，目前已達 343 公頃。濕地具有公共價值，我們希望能找到更多對濕地生態、水鳥保育志同道合的人一起來努力維護這片寶貴的濕地，共同讓這片濕地能維持下去。

招 募 對 象：滿 18 歲，對布袋鹽田、生態環境有熱情者

名 額：25 名

活 動 日 期：113 年 8 月 31 日、9 月 1 日、9 月 7 日

活 動 地 點：布袋國中 3 樓會議室及布袋鹽田濕地

報名截止日期：113 年 8 月 27 日或額滿

費 用：報名費 500 元＋保證金 500 元（完成 3 天課程與實習 14 小時後退還保證金 500 元）

課 程 內 容：<https://reurl.cc/ez1gkx>

報 名 連 結：<https://neti.cc/b2b46KQ>



請掃 QR Code
填寫報名表單



主辦單位：社團法人高雄市野鳥學會、高雄鳥會粉絲團

指導單位：財政部國有財產署、經濟部能源署、嘉義縣政府農業處、林業及自然保育署嘉義分署

旅者他鄉

洄瀾博物學



08.17 (六)
3小時 14:00-17:00

來去大河—立霧溪畔的遷徙與記憶
● 金尚德 ● 婦幼親創園區（室內演講）

08.18 (日)
5小時 07:00-12:00

來去大河—立霧溪畔的遷徙與記憶
● 金尚德 ● 立霧溪、新城老街、三棧溪口



報名掃描我



【洄瀾博物學——旅者他鄉】8 月份講座與野外踏查

數百年前，位於臺灣山脈西方的 Truku 獵人追尋著獵物，越過奇萊山來到了東方的原始森林。這片豐富的獵場吸引著他們，於是族人決定遷徙至 Yayung paru（意謂「大河」，即立霧溪）上游，並在此建立了第一個部落「博托闊」，意為「初到之地」。300 多年來，太魯閣族人沿著大河遷徙，逐步在河階台地定居。川流不止的立霧溪見證了這段壯闊的遷徙歷史。

本次講師邀請金尚德老師，其熟悉太魯閣地區古道與開拓史，本次講座與戶外踏查中，帶領我們一同走進這段歷史歲月，觀看一段人類民族的遷徙路徑與故事。

113 年 08 月 17 日（星期六）

來去大河 - 立霧溪畔的遷徙與記憶

報到地點 | 婦幼親創園區

報到時間 | 13:45-14:00

講座地點 | 婦幼親創園區

講座地址 | 970 花蓮縣花蓮市府後路 2 號

講座時間 | 14:00-17:00

113 年 08 月 18 日（星期日）

立霧溪畔沿線踏查

報到地點 | 花蓮縣政府前停車場

報到時間 | 06:45-07:00

觀察地點 | 立霧溪與三棧溪沿線

野外觀察與導覽時間 | 07:00-12:00

主辦單位：花蓮縣政府農業處

執行單位：社團法人花蓮縣野鳥學會

屏東縣野鳥學會 文圖 By 屏東鳥會

生態保育專題講座



山野安全行



生態保育
專題講座

主講人：謝思怡
興大附農 森林科

06/07 (星期五) 19:00 在綠書坊

☆ 本活動免費、免報名，歡迎自由參加，敬請準時入場 ☆



臺灣外來種蛙類

分布現況及控制



生態保育
專題講座

主講人：青蛙公主 楊懿如 老師

07/05 (星期五) 19:00 在大路觀

☆ 本活動免費用，歡迎報名參加，敬請準時入場 ☆



貓頭鷹耳部的不對稱性： 一個常見的小誤會

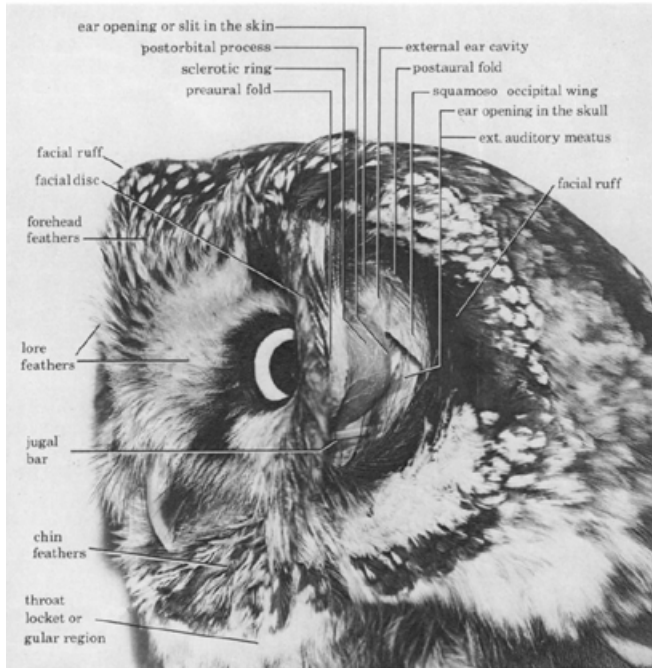
文 BY 馮孟婕

提到可愛的貓頭鷹，除了萌萌大眼、長腿迷因、偽裝貓耳的角羽、可以左右旋轉270度的頭部，以及能在空中安靜飛行的羽毛之外，許多人也會想到「貓頭鷹的頭骨及耳孔是不對稱的」這件事。這確實是某幾種貓頭鷹特別的生理構造，也是鳥類解剖學上的經典案例，但綜觀整個貓頭鷹家族／鴞形目 (Strigiformes)，卻並非每個物種都具有這個特徵。

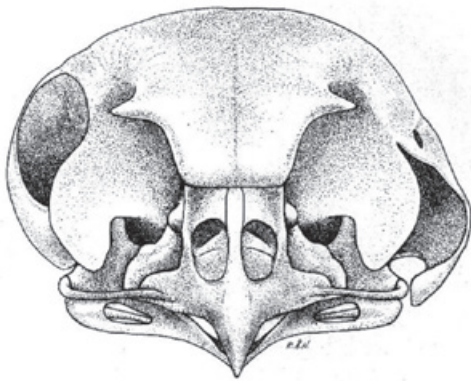
鳥類雖然不像我們一樣有外耳殼，但整副「耳朵」也是由許多不同的組織構成的，對稱或不對稱，其實很難單以「有」或「無」去劃分。為了讓後續的說明更加清楚，先簡單介紹一下與這個主題相關的、鳥類耳部的軟組織（皮膜、軟骨與肌肉等）和硬組織（骨骼）：

軟組織方面，多數鳥種在眼睛後方有明顯的耳孔 (ear opening; ear slit)，有些物種（如倉鴞）的耳孔前緣會有耳瓣 (preaural flap; preaural fold; operculum) 覆蓋；貓頭鷹的耳孔通常很大，翻開覆蓋表層的耳羽後，除了可以看到通往內耳的耳道 (ear canal)，也可能看到耳道周圍的皮膜組織，甚至眼睛。

硬組織方面，貓頭鷹頭骨的不對稱性表現在鱗狀骨——枕骨翼緣 (squamoso-occipital wing)，此構造在其他鳥類大多是對應於耳孔後緣的位置，是構成耳部腔室的主要硬質組織，後文簡述為「頭骨耳部」。本文軟、硬組織的統稱亦簡述為「耳部」。



鬼鴉 (*Aegolius Funereus*) 的面部與耳部構造說明。畫面中是一隻處於警戒狀態的馴化個體，牠的左側面盤與耳瓣向前翻開，露出了耳孔。圖片截取自 Norberg (1977) 著作第 378 頁。



鬼鴉 (*Aegolius Funereus*) 的頭骨。除了鱗狀骨——枕骨翼緣，不對稱性也延伸到了周圍的硬組織，如眶上骨、鱗骨、頭頂骨和額骨等。圖片截取自 Newton (2002) 著作第 338 頁。

現存的鴉形目包含大約 250 個物種，但有被詳細描述過耳部特徵的可能僅約 1/10，台灣大多數物種也缺乏文獻紀錄。本文參考相關文獻，依據耳孔與耳道的位置、大小、軟／硬組織等，將「貓頭鷹耳部的不對稱性」從最不對稱到完全對稱整理成六類，並盡可能將台灣有分布的物種納入討論：

頭骨與軟組織皆不對稱：經典案例是烏林鴉 (*Strix nebulosa*) 與長尾林鴉 (*Strix uralensis*)。牠們頭骨耳部的水平高度相同但形狀不同，耳瓣形狀也不同，且右耳孔明顯較大 (但也有少數個體左耳孔較大)。

頭骨不對稱：這是網路上最常見的貓頭鷹頭骨圖片，來源大多是鬼鴉 (*Aegolius funereus*) 和棕櫚鬼鴉 (*Aegolius acadicus*)。牠們的頭骨耳部非常發達，呈現超級明顯、右高左低的不對稱。所以儘管耳孔的大小、位置，以及內耳皆是對稱的，耳道開口的位置從外部看來仍會有些不對稱。

耳孔與耳瓣不對稱：經典案例是倉鴉 (*Tyto alba*)。牠們常常被誤以為是頭骨不對稱的鳥種，因為單從外觀檢查，牠們的耳孔和發達的耳瓣都呈現明顯的左高右低、形狀也略顯不同，但其實沿著耳道深入內耳及頭骨都是對稱的。(根據一些東方草鴉 (*Tyto longimembris pithecopis*) 的網路和書面資料，牠與倉鴉的特徵或許頗相似。)

耳道不對稱：此類案例包含短耳鴉 (*Asio flammeus*)、長耳鴉 (*Asio otus*) 及其他幾種不同屬的貓頭鷹。牠們的耳孔是對稱的，但耳道形狀和位置都是不對稱的，在已發表文獻中，此類貓頭鷹的耳道開口位置皆為左高右低。(耳道位置受耳腔內的皮膜位置影響，故形狀理應有差異)

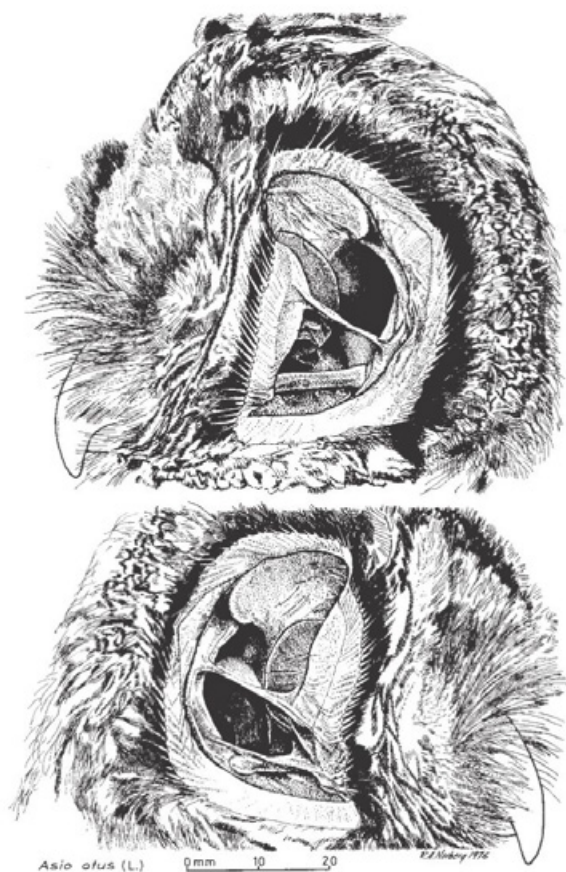
耳孔 (大小) 不對稱：此類案例包含褐林鴉 (*Strix leptogrammica*) 等幾種林鴉屬成員，及其他幾種不同屬的貓頭鷹。在已發表文獻中，除了棕腿林鴉 (*Strix rufipes*) 是左耳較大之外，其餘物種皆是右耳較大 (但仍有少數個體是相反或對稱的紀錄)。

沒有不對稱：許多貓頭鷹的耳部構造都是對稱的，一些比較知名的物種如雪鴉 (*Bubo scandiacus*)、猛鴉 (*Surnia ulula*)、大鵬鴉 (*Bubo virginia*)、北方白臉鴉 (*Ptilopsis leucotis*) 和縱紋腹小鴉 (*Athene noctua*) 等皆是

如此。根據筆者個人解剖經驗，領角鴞 (*Otus lettia*)、黃嘴角鴞 (*Otus spilocephalus*) 和鵯鵡 (*Glaucidium brodiei*) 在頭骨耳部、耳孔大小與位置上也沒有明顯的不對稱 (樣本數分別為 $n=5, 2, 3$)。



長尾林鴞 (*Strix uralensis*) (左) 和烏林鴞 (*Strix nebulosa*) (右) 的頭骨俯視圖。兩者的鱗狀骨——枕骨翼緣在橫向水平發展的程度不同。圖片截取自 Norberg (1977) 著作第 390 頁。



長耳鴞 (*Asio otus*) 的左右耳孔。圖片截取自 Newton (2002) 著作第 336 頁。

值得注意的是，耳部的對稱性並不是一個穩定的分類學特徵，同一屬的物種可能存在差異，甚至

同一物種也可能有個體差異。例如大鵯鵡 (*Bubo virginia*) 和歐亞雕鴞 (*Bubo bubo*) 雖然親緣關係很近，但前者耳孔沒有明顯不對稱，後者則是右耳孔明顯較大。

貓頭鷹耳部的對稱性與聽覺能力和習性有關。聲音定位的原理在於兩耳的訊號差 (時間與強度)，而越高頻的聲音越難定位 (這也是為什麼許多鳥的警戒聲 (alarm call) 音頻都較高)。一篇比較了對稱與不對稱各四種貓頭鷹的研究 (Gutiérrez-Ibáñez et al., 2011) 顯示，耳部不對稱的貓頭鷹具有較好的高頻聽力，且聽覺神經組織體積較大。另一份包含二十五種貓頭鷹的比較研究 (Pecsics et al., 2018) 則指出，頭骨形狀較對稱者基本上是晨昏型或日行性物種，而較不對稱者大多是聽力較佳的夜行性物種。

從演化發育生物學來看，在貓頭鷹家族的演化樹上，耳部不對稱性獨立發生多次且分布廣泛。有研究 (Krings et al., 2019) 表明縱紋腹小鴞 (*Athene noctua*) 與倉鴞 (*Tyto alba*) 在相同的胚胎發育階段耳部均表現出了不對稱，但前者的不對稱在孵化前不久便會消失。不對稱的耳部可能是貓頭鷹演化過程中的一項祖徵，與嚴峻的夜間環境適應有關。



烏林鴞 (*Strix nebulosa*) / 徐振輔 攝



猛鴞 (*Surnia ulula*) / 徐振輔 攝



縱紋腹小鴞 (*Athene noctua*) / 徐振輔 攝



歐亞雕鴞 (*Bubo bubo*) / 徐振輔 攝

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Soaring on the Wings of Giants —

35 Years of the Taiwan Wild Bird Federation (Part 2)

By Scott Pursner / TWBF Director of International Affairs

Part 2: The Founding of the TWBF and its Partners and Early Actions (Late 1980s-2000)

Being Established in a Time of Change (mid-1980s to 1989)

By the mid-1980s, Taiwan's rapidly growing middle class was paying greater attention to environmental as well as conservation issues and growing more and more interested in birds. It was at this time a new checklist for Taiwan's birds was proposed. Taiwan's three birdwatching groups met in 1985 for what could be described as Taiwan's first attempt to review its bird data collected by birders. There were two meetings held, with scholars and academics invited to attend. In total, 19 new species records were shared, but there was no final adoption of the results (5).

In 1986 discussions of how to represent Taiwan and its ornithological efforts abroad were taking shape. By this point, various academics and government-approved groups were in contact with the International Council on Bird Protection. The international group had even written to the Taiwanese government in 1985 asking about

the conservation status of certain bird species like the Mikado Pheasant, Swinhoe's Pheasant, Elegant Scops Owl, and Chinese Egret (9). This led government agencies and government-approved NGOs to meet and discuss how to integrate Taiwan's conservation work with global efforts.

The ICBP established closer links with Taiwan and supported its efforts in conservation. In turn, Taiwanese researchers and groups supported the ICBP's conservation programs. In 1986, Dr. Lucia Liu Severinghaus represented the Society for Wildlife and Nature of the ROC (SWAN) at the 1986 World Conference of ICBP in Canada (9). At the meeting, she stressed that politics has no place in conservation, as birds do not know borders. She added that Taiwanese conservation efforts needed international recognition and support, and that they should not be excluded from joining international organizations. Using this as a launching point, and after numerous meetings with the ICBP, the group later revised its regulations to accept members from outside the United Nations. Eight years after that meeting in Canada, the TWBF signed the paperwork to become an affiliate of the successor to the ICBP, BirdLife International (9).

Domestically, the heads of the three major bird groups in Taiwan met in 1986 to discuss the creation of a national-level bird conservation organization, with the thinking that such an organization would improve coordination, create a platform for sharing information, and provide a stronger voice for local groups in interactions with the government. In the words of one of the founders and a former president of the TWBF,



Elegant Scops-Owl (Source: TWBF)

Dr. Fang Woei-horng, "In the beginning, people all agreed that we needed a national-level type body because if we remained local societies, nobody would be strong enough to talk with the central government." The organization as planned would also serve as a more united voice in discussions with international NGOs outside of Taiwan (3). Noting that one of the main functions of the group was to help represent the three organizations, L. Severinghaus recalled that its founders hoped it would be able to create a "unified voice" to take advantage of international opportunities. To address the major concern that the organization would render existing groups obsolete, she added it was agreed that the new organization would serve as a secretariat, with local bird societies inducted as partner organizations.

It would be two more years, however, before the organization was officially formed. In 1987, martial law was lifted in Taiwan, with one of the effects being the removal of the requirement that civic organizations affiliate with a government-approved organization. Time was required to adjust to the new bureaucratic order. Though the Wild Bird Society of Taipei created its own group in 1984, the Wild Bird Association of Taiwan in Taichung did not change its status until 1991, and the Kaohsiung Wild Bird Society did not receive approval from the city government to be a bird society until 1993 (3). Yet on July 31, 1988, the thirty delegates required to establish a national-level organization met, discussed, and signed the paperwork to found the Wild Bird Society of the Republic of China, today known as the Taiwan Wild Bird Federation. This unified voice for local bird societies started with three members, or partner organizations, and was initially located in the same building as the Wild Bird Society of Taipei. The organization, founded by local birdwatchers and nature enthusiasts, adjusted its focus from pure birdwatching to include conservation components as well.

The organization started its own official

月刊創刊號

選舉報導

... 選舉 ...

7月21日成立大會中，中華民國野鳥學會第一屆理事、監事選舉在公正、公平、公開的原則下，於莊嚴敬肅的氣氛中順利完成，今將開票結果列於下：

中華民國野鳥學會第一屆理事選舉開票統計記錄一覽表

姓名	得票數	姓名	得票數	姓名	得票數	姓名	得票數
郭連仁	205	劉小姐	176	林曜松	146	呂光洋	144
沙謙中	143	曹美華	141	許建忠	132	方偉宏	125
陳素莊	96	王顯	95	顏重威	87	吳森雄	86
魏銀南	79	洪欣昌	76	陳炳煌	66	王健得	65
郭東輝	58	陳肇霞	58	林新陽	50	吳永華	46
謝錦煌	42	陳瑞輝	40	余遠猛	40	洪惠章	36
賴子文	35	陳加盛	30	曾瀾永	30	李福財	22
蔡仲昆	14	邱慶隆	4	劉妙馨	3	陳新陽	3
張多弟	2	林金雄	2	林茂榮	2	李茂益	1
周麗娟	1	彭春夫	1	洪莉	1	高國國	1
曾美麗	1	蕭桂珍	1				

中華民國野鳥學會第一屆監事選舉開票統計記錄一覽表

姓名	得票數	姓名	得票數	姓名	得票數	姓名	得票數
徐慶珠	107	莊金鐘	104	張忠敏	88	楊平世	84
蔡牧起	79	郭城廷	72	林茂榮	58	洪炎興	31
黃海泳	25	周麗娟	2	鄭建忠	2	郭智勇	2
高國國	1	陳永仁	1	林茂松	1	林茂興	1
洪金榮	1	林金雄	1				

當天大會主席根據開票統計結果宣佈當選名單：

理 事：郭連仁、劉小姐、林曜松、呂光洋、沙謙中、曹美華、許建忠、方偉宏、陳素莊、王顯、顏重威

候補理事：吳森雄、魏銀南、洪欣昌、陳炳煌、王健得

監 事：徐慶珠、莊金鐘、張忠敏

候補監事：楊平世

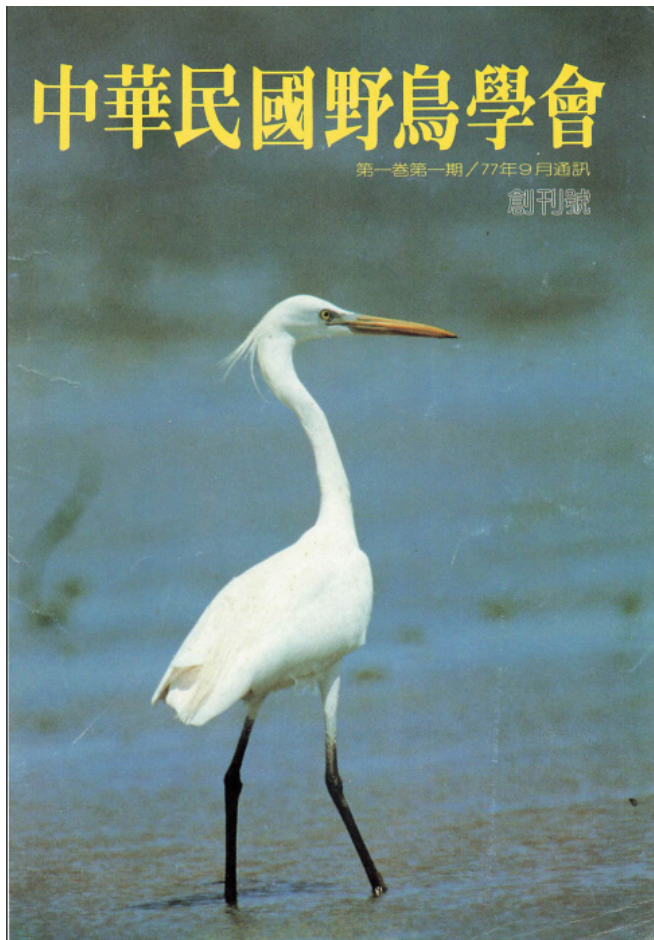
8月7日第一屆理事監事聯席會議中，曹美華、許建忠、徐慶珠等當選人因私務繁忙提出辭呈而獲准，因此由吳森雄、魏銀南遞補為理事，楊平世遞補為監事。

- 11 -

Results of the vote for TWBF's first Board of Directors and Supervisory Council (Source: *Periodical of the WBSC Vol. 1 No. 1*)

periodical, The Periodical of the *Wild Bird Society of the ROC*. Launched in fall 1988, the magazine covered birdwatching trip reports, articles on local ecology, new checklist information, stories about conservation issues, and local reports by member societies. Feather Magazine served as an important resource on birdwatching and conservation before the advent of the internet. A year later it would be renamed Feather Magazine by a vote from the TWBF's Board of Directors and Supervisory Council (Attachment 2).

The new organization also undertook responsibility for a number of activities still in the planning or launch phases, including the collection of checklists and bird records. By 1984, the Wild Bird Society of Taipei had begun to collect checklists from members, yet many birders did not share their lists. In 1987, the Taiwan Bird Record Database was launched. According to Fang, it was



Cover of the Inaugural edition of the *Periodical of the Wild Bird Society of the ROC*. It would be renamed *Feather* the next year (Source: TWBF Archives)

managed by the TWBF and relied on DBase, an early data management system which allowed for records to be submitted on paper and entered into the system manually. Though many were reluctant at first, over time more and more people came to accept the idea. In 1998, the system shifted to Windows 98. Though an arduous process at first, the database later served as the foundation stone for a generation of bird conservation work and would be used for many conservation efforts in the future.

Another action in which the TWBF became involved was the Asian Waterbird Census. As Fang explained, in 1987 he was at the office of TWBF's first president Guo Da-ren. Guo, a dentist by trade, had received a letter from Wetlands International about participating in the newly initiated census which looked at wintering waterbird species

throughout Asia. With Guo's approval, Fang coordinated Taiwan's participation in 1988, surveying 27 sites by means of connecting with the existing network of birders across Taiwan. Fang continued to compile Taiwan's AWC data for much of the next 20 years on behalf of the TWBF, and this data was later added to the Taiwan Bird Record Database.

Bird banding was another area in which the TWBF was active. Most banding activity stopped after the MAPS program of the 1960s and early 70s, except for efforts by a few individuals such as Dr. Peter Chen and Yan Chung-wei. By the late 1980s, Taiwanese researchers and NGOs were receiving queries about bird banding in Taiwan. Dr. L. Severinghaus recalled being contacted by Dr. Ishida Noritaka, her colleague at the Wild Bird Society of Japan, who had come to Taiwan in the late 1970s to discuss the problem of hunting Grey-faced Buzzards and who was very close with the Taiwanese researchers. Now he was interested in discussing Taiwan's bird banding. Fang added that the WBSJ and the Australia Waders Group contacted the TWBF on this topic. According to him, these groups wanted Taiwan to begin banding since birds banded in Australia were recorded showing up in Japan, and they wanted Taiwan to help fill in gaps surrounding their migration paths. Bird banding in Taiwan had to be started from scratch in many respects. In the north, WBS Taipei volunteers went to northern Taipei's Guandu area to set up mist nets and do banding at night when it was easier to catch birds. Severinghaus explained that meetings to discuss banding were later held with the Council of Agriculture, which agreed that there should be one group charged with managing bands for Taiwan – the TWBF.

1989 witnessed a milestone for conservation in Taiwan. After five years of legal battles, Taiwan's Wildlife Conservation Act became law. This landmark legislation, based on the American Endangered Species Act, listed Taiwan's threatened species, with placement on the WCA list providing

the possibility of legal protections. That year, another attempt was made at reviewing Taiwan's bird records (5). The TWBF called this second review meeting in January 1989. In total, 16 new records were approved. Yet with no formal written report, the only record of the report and semi-official record of the event was an article in the next day's *Minsheng Daily* (5).

Between 1989 and 1999, the federation expanded rapidly as bird societies were founded in more cities and counties. Groups which later became partner organizations that were founded during this period include Wild Bird Society of Nantou, Wild Bird Society of Hsinchu, Wild Bird Society of Hualien, Wild Bird Society of Keelung, wild Bird Society of Changhua, Wild Bird Society of Tainan, Wild Bird Society of Kinmen County, Wild Bird Society of Penghu, Meinung People's Association (Kaohsiung), Wild Bird Society of Taoyuan, Wild Bird Society of Pingtung, and Wild Bird Society of Taitung. It was also during this time that Taiwan came into the global spotlight, as Asian conservationists and NGOs were beginning the campaign to save the Black-faced Spoonbill.

Taiwan Conservation Arrives on the World Stage (1989-1999)

Little was known of the Black-faced Spoonbill, a waterbird endemic to East Asia, until Peter Kennerly of the ICBP in Hong Kong decided to investigate its numbers and distribution in the late 1980s. He initially wrote to Lin Chih-cheng, a fertilizer company owner in rural Miaoli County who he had met at an international meeting. Lin shared the correspondence with the WBS Taipei and soon a group was formed to survey the Zengwen Estuary in Tainan County where the bird was known to winter. Kennerly would later publish his findings in a 1990 report. It revealed that there were just 288 of the unique waterbirds between Taiwan, Vietnam, Hong Kong, China, South Korea, and Japan. Taiwan had 52% of the global wintering population of this critically endangered population. Locally, people

were confronted with the significant presence of a species that hadn't been on the radar until then (7).



A Black-faced Spoonbill with Breeding Plumage (Source: TWBF)

Researchers who also served on the TWBF's Board of Directors such as Wang Ying were soon working on plans to help study the birds and better understand their distribution and ecology. Yet much of the protection work on the ground was done by the Wild Bird Society of Tainan (founded 1992), which worked diligently with the researchers to survey the birds at night to understand their numbers and behavior. Also in 1992, the Black-faced Spoonbill became the first migratory species to be added to the Wildlife Conservation Act list of protected species. Efforts were also aided by the founding of the Taiwan Endemic Species Research Institute (now known as the Taiwan Biodiversity Research Institute) that same year. This government institute was founded with the goal of conserving Taiwan's existing endemic species and genetic diversity as well as sustaining ecological balance in the long term (10). The group became an important partner for Taiwan's conservation NGOs.

Collaboration with international groups was critical to conservation success for the Black-faced Spoonbill. The TWBF asked friends at the Wild Bird Society of Japan (WBSJ) to provide them with materials on how to create wildlife conservation areas while also facilitating development. As part

of a letter writing campaign, the TWBF called upon members of the global community to send messages to local and national officials asking them to save the Black-faced Spoonbill. Then in 1993, Taiwanese researchers joined in discussions regarding the holding of an annual international Black-faced Spoonbill census covering all areas it was found. The first full census report of 1994 reported less than 400 birds, with 90% of the population recorded wintering in Taiwan (7).

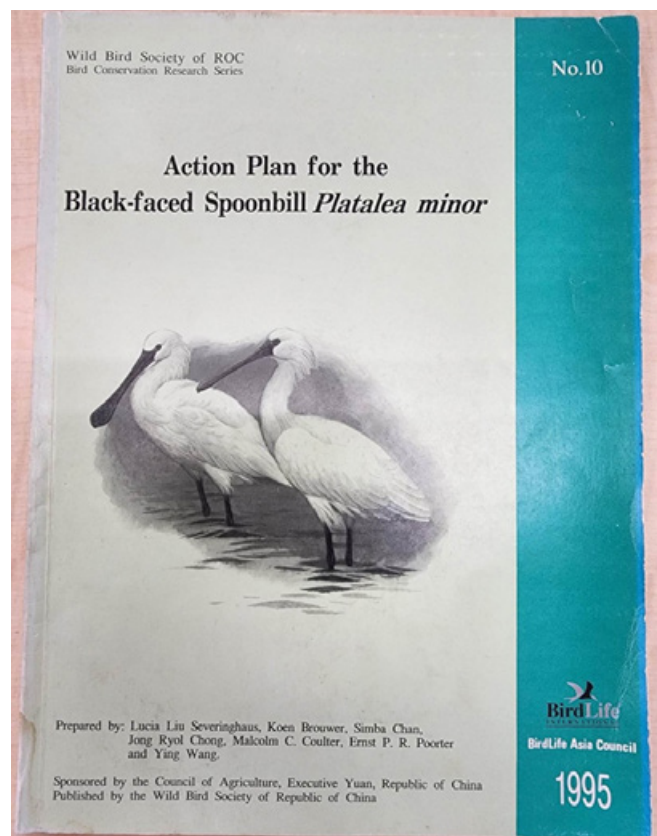
Yet even as late as 1994, Severinghaus explained that not much was really known about the the bird's breeding or migration. Then serving as TWBF president, she met with the head of the newly formed BirdLife Asia Division on the sidelines of the 21st BirdLife World Conference in Germany. Along with the head of the BirdLife Asia Council, Dr. Ishida Noritaka, and Dr. Jong Ryol Chong of Korea University in Tokyo, it was decided that the Black-faced Spoonbill would become a BirdLife Asia topic. Severinghaus volunteered to raise money and write the relevant action plan. Taiwan's Council

of Agriculture (now Ministry of Agriculture) later sponsored the Action Plan draft meeting, which took place in January 1995. They also supported the publication of the first *Action Plan for the Black-faced Spoonbill *Platalea minor**, which came out in September that year. The meeting was coordinated and run by Dr. L. Severinghaus and the TWBF (7).

The action plan detailed how to study and conserve the species locally, as well as the kind of international collaboration needed. A task force was also set up to discuss progress, and met in Beijing in 1996 and Tokyo in 1997 before returning to Taipei in 1998 (7).

During the mid-1990s, Dr. L. Severinghaus served as president of the federation for one term although she was a board member for many years. As she explained it, while in office, she amended the constitution to ensure fair representation among the different partners. There was also an awareness that different regions of Taiwan might face different sociological or ecological concerns. As she put it, "While I was president, one thing that I did was make sure we represented everyone. I requested that the head of every society come to my monthly meetings. It could be the president or the director general but they would need to come up so we could discuss TWBF affairs. This would be necessary until we all felt it wasn't. Another was that we needed an official accountant to ensure our finances were secure. Finally, there was the matter of representation. How many representatives should each group get at the General Assembly? That was decided by me. For every 100 people who were members of the partner organization, they got one representative, and less than 100 got a minimum of one representative. This is the method still used today. This may have upset the bigger groups, but fair is fair, and giving groups regardless of size their voice could help the TWBF to become an appropriate representative to the outside."

During her tenure, Severinghaus also sought to create an official checklist of the birds of



The first *Action Plan for the Black-faced Spoonbill (Platalea minor)* (Source: TWBF Archives)

Taiwan. According to her, prior to this, "There was a checklist done by the Wild Bird Society of Taipei and they had many good birdwatchers. So using this and coupling it with the information from the Taiwan Bird Records Database, we tried to rebuild the checklist." The TWBF would go on to be charged with the *Checklist of the Birds of Taiwan* (13).

Severinghaus was also instrumental in helping the TWBF join BirdLife International (formerly the International Council on Bird Protection) in the mid-90s. The strong relationship between the ICBP and Taiwan which began in the 1980s continued when the organization was relaunched in 1993 as BirdLife International. The TWBF officially became a Partner Designate in 1994 at the same meeting in Germany where it was decided the Black-faced Spoonbill would become a BirdLife Asia topic. Two more years passed before the organization became an official BirdLife International partner, which took place at the 13th BirdLife Asia Conference and 1st Pan-Asian Ornithological Congress held in Coimbatore, India in November 1996 (2). With this, the Taiwanese NGO officially joined the BirdLife family and took its place alongside its neighbors and friends in working towards conservation goals for birds.

The organization was missing an official mascot, however, and according to Fang, a vote was held at a board meeting that year to decide which bird should represent the federation. The Mikado Pheasant won out in the end, and was selected for a few different reasons. First, although the official name for the species in Mandarin is 黑長尾雉 (Hēi cháng wěi zhì) which roughly translates to Black Long-tailed Pheasant, it is more commonly known as 帝雉 (Dì zhì) which means Emperor Pheasant and is more aligned with the English name which originates with the Japanese name for emperor, Mikado. This name sounded impressive to those taking part in the discussions. Second, the Mikado Pheasant is an endemic species, a representative of birds only found in Taiwan. Third, it is big enough to be seen easily without binoculars. Fourth, as opposed

to certain other endemics such as the Swinhoe's Pheasant, it has a very distinctive look. Fifth, as a species found at high elevations, the newly founded organization could be considered in high regard and important in the conservation of birds. The first time the Mikado Pheasant made its debut as the official mascot was in the first color Feather Quarterly in 1996 (1). It was also the same year that the federation's English name switched from the Wild Bird Society of the Republic of China to the Chinese Wild Bird Federation.



The first time the Mikado Pheasant featured in a TWBF publication was 1996 (Source: TWBF Archives)

One of the defining projects taken on by the TWBF and its partners during the late 1990s was the establishment of Important Bird and Biodiversity Areas (IBA) in Taiwan. The purpose of IBAs was to promote the importance of habitat conservation by using birds as indicators of biodiversity. In the case of resident birds, this designation could lead to regional area protections; for migratory species, it could lead to better coordination beyond borders for the conservation of species. This would not

only help establish comprehensive conservation networks necessary to maintain migratory routes, but would also foster international collaboration. Such certification offered to help protect important habitats, given that Taiwan is unable to receive RAMSAR or UNESCO designations since it is outside the UN system. As BirdLife International was charged with the certification process of IBAs, the TWBF as an official partner worked with its own partner organizations to draft a list of the sites important to Taiwan's birds. Much of the data used in the discussions came from records in the Taiwan Bird Record Database, and checklists done during this project were also added to it as well.

In 1994 and 1996, the TWBF participated in preliminary meetings on IBAs, yet the project took off domestically only in 1998. Between 1998 and 1999 the TWBF held eight different meetings with its partners and international groups such as the Wild Bird Society of Japan to share information and prepare their case for IBAs in Taiwan (2). In 1999, the TWBF hosted the 1999 International Conference on Important Bird Areas as well as the 1999 BirdLife International Nature Reserve Management Seminar. At both events, representatives from all over the BirdLife Partnership attended to discuss the work of developing IBAs and how to use them for conservation. As Fang put it, "We had the IBA conference and a workshop at the Free Buzzard at Mt. Bagua [an event started by the TWBF partner, the Wild Bird Society of Changhua]. Then organization president Simon Liao mobilized all partner organization presidents to join these activities. There were international delegates like the BirdLife International Global Council chair as well as representatives from the Royal Society for the Protection of Birds in the UK and Wild Bird Society of Japan. Future BirdLife CEO Marco Lambertini was also there. The event was so big a meeting was even held with then-Taiwan President Lee Teng-hui."

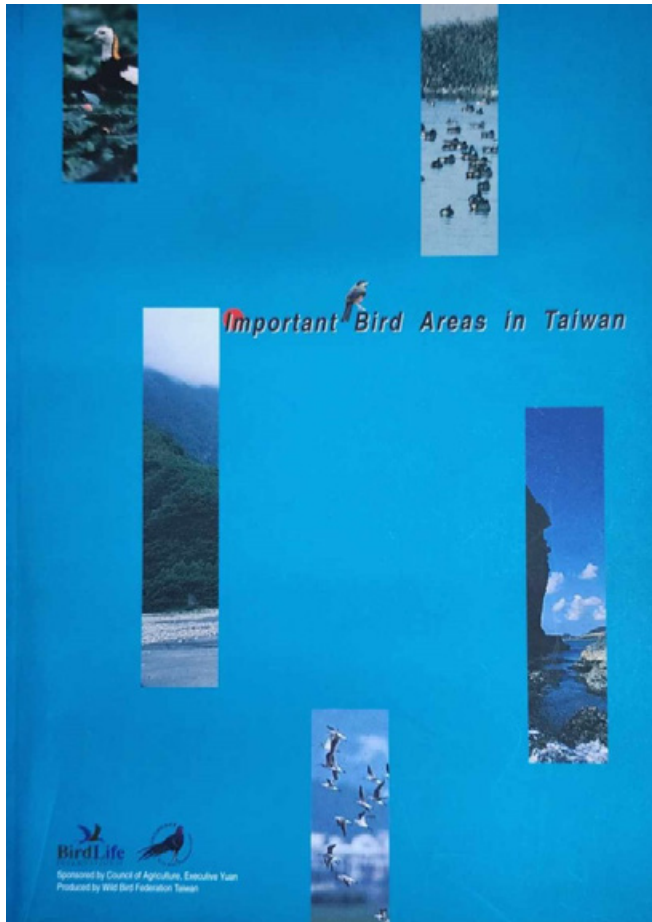


A photo from the meeting with President Lee in 1999
(Source: TWBF Archives)

The group discussed the importance of conservation and international cooperation with President Lee. Eventually, the TWBF submitted documentation for 52 IBAs in March of 2000, of which 51 were confirmed. More would be nominated over time, and areas designated as IBAs still remain important today (2).

Another BirdLife Initiative with Taiwan and the TWBF was the creation of BirdLife International's Threatened Birds of Asia—the BirdLife International Red Data Book. As Fang recalls, it was under the TWBF presidency of Guo Cheng-yu (1997-1999) that Taiwan and TWBF became involved. The purpose of the book was to highlight species under threat in Asia so that more work could be done to understand those at risk and do more to protect them. As with the IBA project, Taiwan's data relied again on the information of the Taiwan Bird Record database. The first edition was published in 2001.

Yet another project to rely on the Taiwan Bird Record Database was an attempt at a Breeding Bird Atlas for Taiwan. Fang explained, "In the 1990s, the TWBF proposed this project to map Taiwan's bird populations. The fundamentals were based on the database. It would divide Taiwan into 400 squares, and each one was a 10kmx10km grid. Some bird society members were very interested in it such as the well-known birder and member of Nantou Wild Bird Society Tsai Mu-chi. However, there were problems. The first was that the data was so refined it wasn't possible to put in our system. They



Important Bird Areas in Taiwan First Edition
(Source: TWBF Archives)

needed to write a program to log in the data and it was tedious as there were so many points. The code-writing was handled by people from the Wild Bird Society of Hsinchu. They provided the program to input. This project was mainly overseen by Wei Mei-li, then-Secretary general of WBS Taipei and then-president of TWBF Guo Cheng-yu."

Yet even with this support, execution of the project faced complications because of Taiwan's topography. As Dr. L. Severinghaus put it, "Taiwan is not flat. It is difficult terrain. You might be assigned a square that is impossible to get to or take so much time getting to, you couldn't finish in time." Due to these input issues and capacity problems, the atlas never came to fruition, but the effort nevertheless contributed significantly to data on Taiwan's birds.

Flying into the New Millennium (1999-2000)

In the words of former TWBF president Dr. Fang Woei-hong, "We experienced quite a lot of activity and made a lot of noise in the late 1990s and early 2000s. It would be hard to replicate that today." Indeed, this was one of the busiest periods of time for the TWBF as well as its partner organizations. By 1999, TWBF partner organizations were found all over Taiwan. Some of the smaller groups were mainly organizing birdwatching activities or doing education and outreach work. Others were involved in conservation work, such as the WBS Tainan, which had been working with TWBF and international groups on the conservation of the Black-faced Spoonbill. In 1999, their largest partner, the WBS Taipei, had a new idea to create Taiwan's largest birdwatching festival. One of the people involved would go on to be the Taiwan Wild Bird Federation's longest serving secretary-general, Victor Yu. He served in the role from 2006-2011.

Yu said he became interested in birdwatching around 1991 while on a visit to Kaohsiung. When he returned to Taipei, he signed up with the WBS Taipei and took birdwatching lessons before moving on to become a volunteer. After retiring from work as a military instructor in the late 1990s, he began serving as the secretary-general of the WBS Taipei. It was in this role that he helped organize the first Taipei Birdwatching Fair. "Taiwan had migratory bird festivals before, and at that time the president of WBST, Guang Xin-ren, said we should do something bigger, and not just a fair but a festival. So we organized a committee and I was one of the key members of it."

Trouble struck though when funds promised by the Ministry of Foreign Affairs to welcome international participants were later withdrawn in response to a major earthquake that hit Taiwan on September 21, 1999. With no budget, some on the committee suggested canceling the event altogether. Others took a different tack. Yu was one

of them. They thought of inviting diplomatic staff in Taiwan, contacting one after another and finding many participants to support the event. It went on to be a huge success. "We had a huge parade and the boy scouts held out the flag for each of the international members."

The first Guandu Bird Fair would see about 60,000 visitors (14).

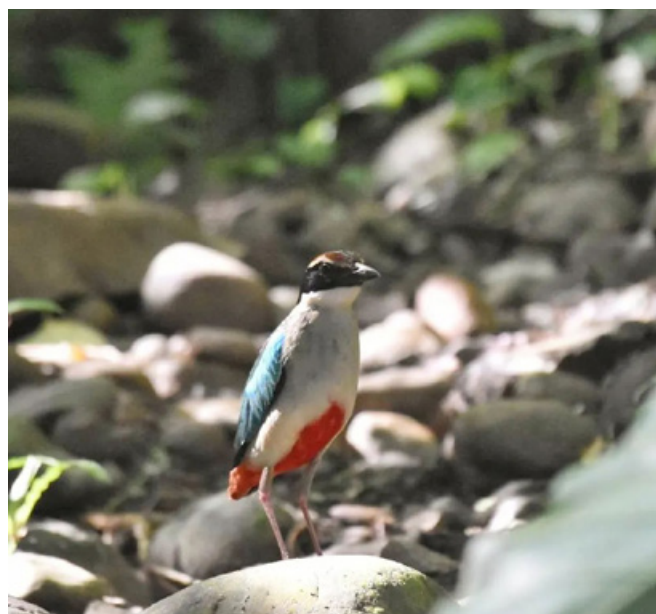
After this, a group was formed to learn about international bird fairs, starting with the British Bird Fair, one of the oldest and biggest of its kind. Yu recalled, "We had our own ideas on how to do a bird fair. Taiwan was one of the first in region. Then there was the Philippine Bird Festival and the Thailand Bird Festival and Raptorwatch in Malaysia. We would do our best to support these efforts to celebrate the birds." The Taipei event would go on to be held annually and became today's Guandu International Birdwatching Fair, bringing tens of thousands of visitors over the years.

That same year, a small migratory passerine called the Fairy Pitta would again turn the attention of the bird conservation world to Taiwan. In 1999, rumor had it that a Fairy Pitta, a poorly understood species at the time, was breeding in the Pillow Hill area near Huben Village in western Taiwan's Yunlin County. This prompted the Wild Bird Society of

Yunlin, a TWBF partner, to ask researcher Dr. Lin Ruey-Shing to help conduct a survey for the bird. Locals hoped to use the issue to stop a gravel extraction project from taking place in their area. After many Fairy Pittas were found breeding in the area, as little was known about the Fairy Pitta or its distribution, it was thought Taiwan might be home to the entire breeding population (6).

In February 2000, the TWBF launched a global appeal called "Save Huben Village – Home of the Fairy Pitta." By May, 73 international conservation organizations from 21 different countries had come out in support of the campaign, working with villagers to increase publicity for the issue and holding letter writing campaigns and petition drives (6). The TWBF applied to BirdLife International for IBA status for Pillow Mountain, which it received in September that year. Local efforts eventually led to a public hearing at the Legislative Yuan and a statement from Taiwan's then-President Chen Shui-bian. Meanwhile, on June 23, Taiwan's Council of Agriculture suspended gravel extraction operations and considered giving Huben and Pillow Hill the designation of "Major Wildlife Habitat." Marco Lambertini, then head of BirdLife International's International Affairs Division, came to Taiwan to talk to government officials on behalf of Huben (6).

The habitat was later threatened again by a dam for the Hushan Reservoir. Again, TWBF reached out to international partners for help. Two years later, in June 2006, BirdLife International sent Jonathan Eames, International Programme Manager for Indochina, and Richard Grimmett, Birdlife Asia Division Head, to participate in the first International Fairy Pitta Symposium hosted by the National Coalition Against the Hushan Dam in 2006 (6). Grimmett spoke at the meeting about the need for a coordinated effort by organizations across the Fairy Pitta's range in Japan, Taiwan, Malaysia, and Borneo to work together to protect the bird's habitat. Dr. Lin's work also showed that the species was not confined to Huben but also bred in many parts of Taiwan. Further research



Fairy Pitta (Source: TWBF)

abroad would also show that it bred in other countries such as Korea, Japan, and China. Though the dam eventually was built, the issue galvanized a generation of Taiwanese conservationists.

By 2000, the ornithological community had grown, with a number of organizations, researchers, and even university labs working on topics related to birds and their conservation. Many of the TWBF's partners were now also better established and taking on new responsibilities in the conservation community. For instance, the Kaohsiung Wild Bird Society formally started to manage the Niaosong Wetland Park, Taiwan's first wetland park (4). Also, in order to help protect Taiwan's dwindling Pheasant-tailed Jacana population, the TWBF along with wetland conservation group Wetlands Taiwan and others helped found the Pheasant-tailed Jacana Rehabilitation Area in southern Tainan City's Guantian District. The 15 ha site was considered the last bastion of the population which was only around 50 (11). The area is Taiwan's water chestnut capital, and the jacanas use the floating leaves to build their nests and feed on bugs. It was first managed by the Kaohsiung Wild Bird Society. This role would later be taken by the Wild Bird Society of Tainan.

Meanwhile, the biggest conservation story of that year was the rediscovery of the "Mythical Bird," the Chinese Crested Tern, in Taiwan (8). The rediscovery was made in the Matsu archipelago, a group of islands controlled by Taiwan that lie just off the coast of China. For almost 50 years, the small archipelago served as a military outpost with restricted access to all but military personnel and local residents. Then, in the mid-1990s, as tensions cooled across the Taiwan Strait, the islands were opened to the public. Birdwatchers jumped at this chance as Matsu hosts a number of seabirds, particularly birds from mainland Asia that can't be seen in Taiwan. It was at that time that the TWBF applied to conduct surveys of Matsu's 36 islands to learn more about the wildlife situation there (8). It was known that large numbers of seabirds

were using some of the uninhabited rocky islands for breeding. Thanks to the surveys, eight islands were later declared as the Matsu Island Tern Refuge in 2000. Many local people were still fishing and harvesting seafood in the area at that time, so the TWBF hired director C.T. Liang to create a documentary to raise awareness about islet ecosystems and their importance. In the end, it was Liang who first noticed that some of the Greater Crested Terns (GCT) seemed different.



A Chinese Crested Tern (center) with Greater Crested Terns on either side (Source TWBF)

Liang sent his footage to the TWBF, which confirmed that the birds captured on video were in fact different. With a total of eight adults and two chicks recorded, the status of the CCT was revised from presumed extinct to critically endangered, and its population was assessed at around 50 individuals. At that point, nobody knew how many there were, but scientists and conservationists wanted to find out. Soon after the discovery in Taiwan, another breeding group was spotted in China's Zhoushan Islands off the coast of Zhejiang Province. In 2002, the bird was listed as an Appendix 1 species in the United Nations Environmental Programme Convention on Migratory Species. The inclusion marked a big step forward in CCT conservation work as it highlighted the risk of extinction in some or all of its range and advised that it should therefore be protected by all countries in which it appeared. Though initial work mainly involved the TWBF, it later shifted to a collaboration between the Wild

Bird Society of Taipei and the Wild Bird Society of Matsu along with Prof. Yuan Xiao-wei of National Taiwan University. In 2006, a major meeting took place with Prof. Yuan of Taiwan, Dr. Chen Shui-hua of China and Simba Chan of BirdLife International Asia Division. This meeting subsequently led to the inception of the International Single Species Action Plan for the Conservation of the Chinese Crested Tern (8). The TWBF continued to help and lend support in the form of international outreach, communication aid, and management of a rodent removal project for one of the refuge islands in 2008.

The year 2000 also saw the launch of a collaboration between BirdLife International and the TWBF called E-Birds: Promote the Global Protection of Wild Bird Series. With a theme of "Save the Birds—Save the Trees—Save the Earth," it looked to raise awareness of the threats to bird species and bring together like-minded groups and individuals from across the globe. Via the support of Taiwan's Council of Agriculture and other central and local government agencies, Taiwan, the TWBF, and its partners hosted a number of student competitions locally and internationally based around the theme of birds and conservation. For the international competition, each region of the BirdLife partnership was awarded winning submissions, with winning entrants given the opportunity to come to Taiwan for an award ceremony held in November 2001. At the event, keynote speeches were made by Baroness Barbara Young of Old Scone and BirdLife International Director-General and CEO Dr. Michael Rands. At the end of the event, Rand delivered a presentation on the State of the World's Birds and Strategy for BirdLife International (12).



The International E-Birds Awards Ceremony & Conservation Conference event booklet (Source: TWBF Archives)

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暗藏危機

圖文 **By** 蘇貴福

觀察完目標鳥種，和太太及曾老師準備離開學校，經過校園時，聽到高大的榕樹上傳來白頭翁的警戒聲，心想會不會有猛禽躲在裡頭，想著就隨口告訴曾老師。說完，白頭翁的警戒聲也暫停了。

繼續前行，走沒幾步，突然瞥見榕樹下圍起來有點坡度的草地上插著一根木棒似的東西，直覺「會不會是黑冠麻鷺？」，再次隨口出聲，三個人立刻停步，仔細確認，果真是牠，正伸頸朝上宛如木棒！



警戒中

於是，拿出小砲拍個紀錄，由遠而近，還以不同角度拍攝，黑冠麻鷺一直站在原地。由於榕樹高大枝葉茂密，看似很適合黑冠麻鷺築巢，不知上頭會不會有巢？會不會還有另一隻親鳥？只是地面有點乾，會有蚯蚓嗎？

還在動念間，「上面還有一隻大隻的鳥！」曾老師的聲音傳來，過去一瞧，一隻鳳頭蒼鷹就站在高高的枝上，被扶疏的鬚根遮掩著，好不容易才從縫隙中記錄到牠。此時，旁邊大樓廊道上有人經過大聲打招呼，注意力瞬間被吸引過去，再回神已不見牠的蹤影。

等了一會，看到上頭有鳥影幌動，用望遠鏡一搜，就是牠，原來並沒飛走，只是跳飛個枝頭而已。只是仰角更大，枝葉更密，更難拍攝，也就放棄了。

原來，白頭翁的警戒聲是針對這隻鳳頭蒼鷹而來，「mobbing call」群聚滋擾是在通風報信：「我們看到你了！」（猜想）

然而，這隻鳳頭蒼鷹的目標應該不是白頭翁，而是一動也不動的黑冠麻鷺，畢竟體型差異太大，白頭翁不夠看，黑冠麻鷺才是大餐。黑冠麻鷺的擬態，並不是針對我們三人，而是上頭的鳳頭蒼鷹，難怪牠的正面一直朝著鳳頭蒼鷹的方向，牠在擬態也在警戒！

雖然黑冠麻鷺的體型比鳳頭蒼鷹略大，黑冠麻鷺 47 ～ 51 公分，鳳頭蒼鷹 30 ～ 46 公分，但猛禽就是有能耐能夠撿倒體型較大的獵物，黑冠麻鷺絕對不能掉以輕心。在野外偶爾會看到地面上殘留一堆散亂的黑冠麻鷺羽毛，肯定大都是鳳頭蒼鷹的傑作。因此，這隻黑冠麻鷺其實是身陷危機之中，能否存活就看應變能力了。

我們終究還是離開校園了，希望這隻黑冠麻鷺能夠安然渡過這次危機，下次來時還能見到牠！野鳥要存活也著實不易，處處充斥著危險！



鳳頭蒼鷹



JUVART
鵝鳥藝文空間

一間以推廣生態教育為主軸的工作室

特色是老闆與店長都像是侯鳥一樣往來於台灣與澎湖，生態其實就是環境與人之間的互動，它其實是非常有趣又美麗的學科，原本於澎湖七美開設有實體獨立書店，以生態、攝影、編輯等為主要的選書範疇，並致力於出版在地生物圖鑑或是生態小書。雖然目前因人力不足無法維持開啟實體店面的狀態，但仍在網路上繼續發表與生態相關的文章、影片與錄音。歡迎大家觀看、聆聽並追蹤。希望不管藉由聲音、文字或影像，讓大家開始接觸並愛上這塊土地與共同存在其上的生物。

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書籍販售 | 新書、二手書都有，也販售自行出版書籍

生態講座 | 海域生態、環境友善、生物多樣性

文創商品 | 喜歡鳥類與海洋的我們也自行設計開發了一系列相關文創商品，如貼紙、別針與吸水毛巾等。希望大家藉由這些可愛的圖樣認識更多台灣自然界的動物朋友們。

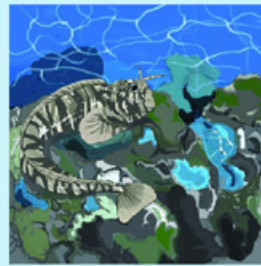
數位典藏 | 將有保存價值之實體或非實體資料，透過數位化方式（攝影、掃描、影音拍攝、全文輸入等），並加上後設資料（Metadata）的描述，以數位檔案的形式儲存。

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潛水教學 | 「怎麼帶你們出門就要怎麼帶你們回家」信奉基本教義派且有教學多年經驗的老闆所帶領的潛水課程不會是最輕鬆愉快，但扎實的室內課程與動作訓練絕對能讓你安全出門安全回家

底片攝影 | 課程從底片簡介、黑白攝影開始，一直到黑白沖片、底片掃描。若有興趣，還可以繼續探索黑白暗房實作。從拍攝到沖洗照片，全部不假手他人，完全的自我探索、完整的攝影創作

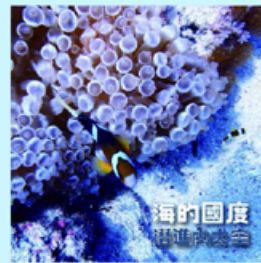
出版書籍



海的國度-潮間帶的挑戰
300元

海的國度不只一本書，而是一系列書籍。以潮間帶作為系列書的開頭，是因為它是人類唯一不需利用工具就可以走進的海洋區域，也是海洋與陸地的交界。

在這時而露出水面時而沒入海中的區域，住著許多奇特的生物，與目前常見的圖鑑書不同，書中不放入琳瑯滿目的生物名稱，反而著重在介紹生物如何因應環境而演化出的特殊技能；例如書中提到不同種的鸚哥魚幼體聚集在一起時會換上同樣顏色的外表，就像是上學時大家要換上同樣的制服，個體才不會太過顯眼而被掠食者發現，用有趣的文字搭配手繪圖片，將生物各種特色介紹給讀者



海的國度-潛進內太空
VR影像書 350元

海的國度潛進內太空是「海的國度」系列書籍的第二本，我們從潮間帶潛水層中，這次不用繪圖而用作者累積了多年的水中攝影照片及各種高畫質影像、VR影片用QR code的方式讓大家一起進入地球的內太空-「海洋」中。

從傍晚的潮間帶開始，有許多夜行性的生物開始蠢蠢欲動，再到夜行性的頭足類、魚類，一直潛到天光，迎接日出。藉由各種生物帶出不同的海洋生態系，如沙底、珊瑚礁、海草床...等等；不僅僅只是生物的介紹，還包含了他們所在的環境之美。



「小島不小」空拍影像書
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以澎湖為主題的空拍書籍，鵝鳥這次用鳥的視角帶大家從天空中看見澎湖，看見島嶼。



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鵝鳥藝文空間 潛水教學課程

教練簡介

朱雲瑋<暱稱：海博士>
中山大學海洋生物研究所畢業

潛水資歷15年；擁有國際潛水教練協會 (NAUI)、國際潛水協會 (CMAS)、國際水肺潛水協會 (SDI) 教練資格。

除一般潛水教學外，也曾任國軍海龍部隊、消防署特種搜救潛水教官、消防署登記潛水教官。此外也擔任過年代電視<Much孩子王>節目特約海洋生態專家、水中攝影。

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| 2、潛水裝備介紹 | 6、減壓理論 |
| 3、水中科學、 | 7、潛水安全 |
| 4、水中醫學 | |

限制水域

- 1、游泳訓練
- 2、輕裝訓練
- 3、浮潛技能
- 4、重裝適應
- 5、重裝技能

開放水域

- 1、游泳訓練
- 2、輕裝訓練
- 3、浮潛技能
- 4、重裝適應
- 5、重裝技能

費用包括：

- 1、訓練期間重裝
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- 5、訓練之教材

費用不包括：

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- 2、訓練期間之食宿

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費用不包括：

- 1、輕裝及重裝
- 2、訓練期間之食宿



報名方式：accentor@ms5.hinet.net

鳥類週報第十三週 啄木鳥科 Picidae

文圖 By 雛鳥藝文空間

台灣鴉形目可以看到兩個科，上週說的鬚鴉科（五色鳥）之外，剩下的就是啄木鳥科了。台灣的啄木鳥有四個屬、四個種，分別是大赤啄木（*Dendrocopos leucotos*）、地啄木（*Jynx torquilla*）、綠啄木（*Picus canus*）、小啄木（*Yungipicus canicapillus*）。

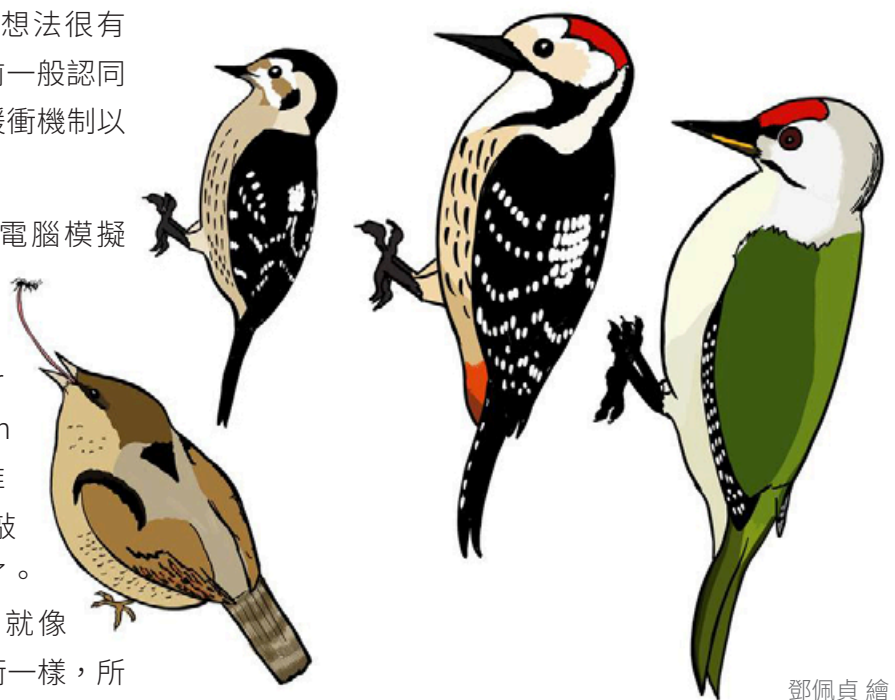
在說這四種啄木鳥之前，我們先來聊一下啄木鳥這麼用力敲木頭，為什麼不會敲到腦震盪？啄木鳥的主食大多是昆蟲、節肢動物等，有時也會輔種子、果實等。大多數的啄木鳥是以敲啄樹木的方式找出躲在樹木裡面的蟲，再以帶刺的舌頭伸進去把蟲勾出來吃掉。

敲擊的力量相當的大，那到底要有怎樣的防護機制才可以避免腦袋撞成漿糊呢？目前有兩種說法，一種是非常新的說法，2022 才發表的論文顯示，啄木鳥在敲擊木頭時就像是以鐵鎚去敲東西一樣，就是硬碰硬啦（Van Wassenbergh et al., 2022. Woodpeckers minimize cranial absorption of shocks, Current Biology）！作者的想法很有意思，想想好像也沒錯就是了。目前一般認同的看法是啄木鳥的腦袋裡有著各種緩衝機制以減輕敲擊時的衝擊力。

Gammon K. 在 2014 年時根據電腦模擬的結果顯示有高達 99.7% 的衝擊力會被變形能（Strain energy）吸收（Gammon K. 2014. Woodpecker Bodies Cushion Collision Impact On Bird Brains. Inside Science.）。這推論看起來好像沒有什麼問題，就是敲擊時產生的衝擊力被緩衝區吸收掉了。但是 Van Wassenbergh 卻認為，這就像是把鐵鎚中間切開裝進彈簧當做緩衝一樣，所

有的力量經過緩衝就會被吸收了，這樣是會降低許多力量上的傳遞。Van Wassenbergh 利用高速攝影機拍攝五種啄木鳥敲擊木頭的畫面，定位並測量了嘴先、嘴基、眼睛三個位置，發現撞擊時這三個地方的相對位置並沒有改變，也就是完全沒有所謂的緩衝，亦即沒有變形能吸收的空間，完全的硬碰硬！

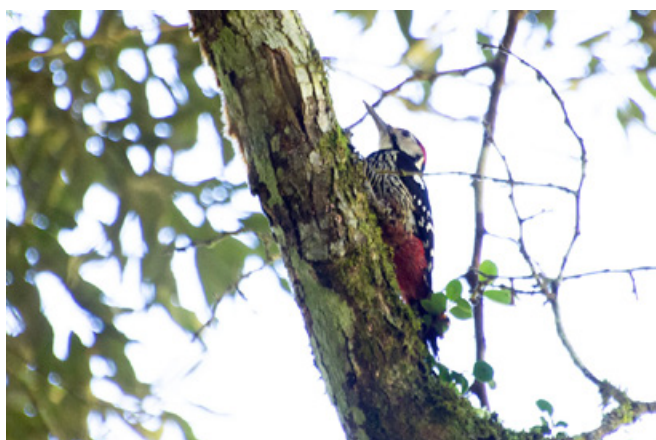
這真的是很有意思的想法，也有完整的實驗佐證。雖然有緩衝區的說法可能會被推翻，不過我們還是來看一下，因為這就是科學演變的歷程，各種理論的假設、驗證都是需要去了解的。以前認為啄木鳥的嘴基部有海綿骨可以吸收敲擊時所帶來的衝擊能量，環繞腦部的舌頭可以視為安全帶的功用等等，這些都是避免啄木鳥腦袋變成漿糊的要點。當然，新的研究只是提出海綿骨應該是沒有緩衝的作用，對於舌頭當安全帶、閉眼睛避免木屑噴到、厚腦殼的物理防護等功能並沒有否定。好了，我們還是回頭看看台灣的四種啄木鳥。



鄧佩貞 繪

台灣最大隻的啄木鳥——綠啄木，在台灣屬於稀有留鳥，種小名 *canus* 就是灰色的意思，也就是綠啄木整隻綠色為主，但是頭是灰色的。綠啄木共有九個亞種，台灣的是 *Picus canus tancolo*，依照 Birds of the World 上的資料是分布於台灣和海南島。真的非常大隻，體長有 30 公分左右，我也只有在太平山看過一次，很可惜來不及拍照。那次真的是被震撼到了，居然有這麼大的啄木鳥！

第二大的啄木鳥就是大赤啄木 (*Dendrocopos leucotos*) 了，他雖然是台灣第二大的啄木鳥，但是已經是 *Dendrocopos* 屬裡面體型最大的了。



大赤啄木，攝於南投杉林溪。啄木鳥常常高來高去的，大多都是這種仰角的照片。

種小名就是白色和背部的複合字，各位就可以想像他的背部是有白色的。大赤啄木這個命名其實不是很適當，就像以前的紅山椒鳥一樣。大赤啄木指的是公鳥頭上有一大片紅色，但是母鳥的頭頂可是全黑的。



大赤啄木，攝於南投杉林溪。公鳥頭頂紅色的一塊，是大赤啄木名稱的由來。

就像紅山椒鳥的公鳥是紅色的，母鳥卻是黃色的，現在改稱灰喉山椒鳥就比較正確了。不過大赤啄木仍然是大赤啄木。大赤啄木的分佈很廣泛，亞洲、歐洲都有，但是因為分布的很零碎，因此隔離的程度比較高，總共衍生出 13 個亞種。你沒看錯，真的是 13 個。台灣的亞種是 *Dendrocopos leucotos insularis*，為台灣特有亞種。其中 *insularis* 就是島嶼的意思。而台灣的亞種是大赤啄木中體型最小的亞種。第一次看大赤啄木的『驚嚇』程度遠勝過第一次看到綠啄木。那是我剛開始看鳥的第一年，和屏東農專賞鳥社的夥伴一起去藤枝看鳥，以前鳥社很窮啊！出門都是打地鋪、睡廢棄工寮的，那次是在廢棄國小裡面打地鋪過夜。隔天一早就聽到響徹山谷的敲擊聲，順著敲擊聲才找到一隻大赤啄木就在枯木上猛敲。那個聲音真的大聲到有回音，印象十分地深刻，但這才不是驚嚇的來源！



大赤啄木，攝於高雄藤枝。內文中敘述敲的很大聲的當事大赤啄木，掃描時都已經發霉了。

接著大家就在藤枝的林道上漫步看鳥。那時有一位學長在記錄台灣的小灰蝶，他正在拍一隻小灰蝶時，我突然聽到非常大聲的蜜蜂的嗡嗡聲，我趕快喊學長『是不是有蜜蜂在我頭頂？』他抬頭看了一下說你不要動，是虎頭蜂，等我拍完這隻小灰蝶我就會去趕他。結果他還沒拍好我就慘叫一聲了，虎頭蜂往我的頭頂螫下去了……只能說真的痛、真的非常非常地痛，然後就暈眩異常了。學長就趕緊扶我回去廢棄國小要我躺著。我們畢竟是農專嘛！總是會有很多認識植物的學長姊，其中一位學姊就要大家趕緊去找姑婆芋，而且要毒性比較夠的，就

是莖切開愈紅愈好，然後帶回來擠出汁液塗在我被螫的地方。

被螫之後，整個早上都是昏昏沉沉的，塗了姑婆芋的汁液後有好轉，直到中午過後才比較有精神。所以我的大赤啄木初體驗就伴隨著虎頭蜂叮咬初體驗，每次只要看到大赤啄木就會想到虎頭蜂、想到小灰蝶、想到學長居然會說等一下……。

第三種是最小的小啄木 (*Yungipicus canicapillus*)。



小啄木，攝於高雄左營。可以清楚看到幾乎是坐在自己堅硬的尾羽上面，腳趾是前二後二。

等等，前面不是說有四種？按照大小排下來，第三種就是最小的？那第四種是什麼？應該說小啄木是台灣樹棲型啄木鳥中最小的，第四種地啄木是地棲型的。

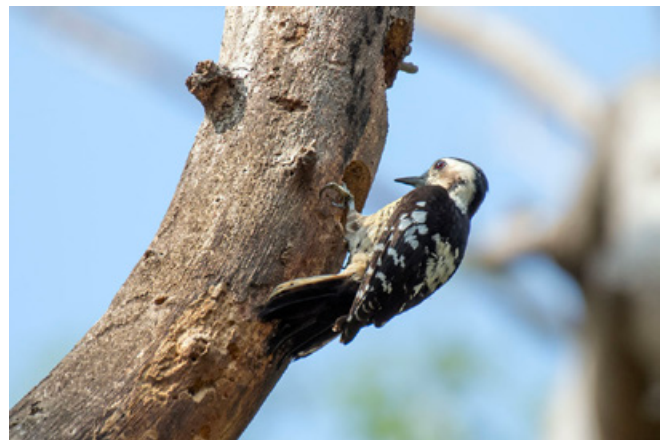


小啄木，攝於高雄左營。小啄木是樹棲型，吃飯、休息、築巢都是在樹上，這是在整修巢位。

小啄木分布的海拔沒有大赤啄木這個高，大約到中海拔而已，而且低海拔甚至平地分布十分廣泛。各位應該常常看到我說種小名是 X + Y 的複

合字（合成字），小啄木可是連屬名都是合成的喔！

牠是 *Yunx*（地啄木的 *Jynx* 屬）和 *Picus* 兩個屬名合成的。種小名就是指灰色的頭。小啄木也是很厲害的，共有 11 個亞種，不過小啄木僅有在亞洲有分布。台灣亞種是 *Yungipicus canicapillus kaleensis*，其中 *kaleensis* 就是指 *Formosa* 的意思。這樣各位讀者或許會有疑問，亞種名是台灣，但是為什麼不是特有亞種？根據以前的分類是特有亞種沒錯，但是目前的分類是從四川、福建到台灣，還有緬甸以及中南半島北部都是為這個亞種的分佈範圍。牠也是台灣最常見的啄木鳥。



小啄木，攝於高雄左營。這張一樣可以清楚看到，幾乎是坐在自己堅硬的尾羽上面。

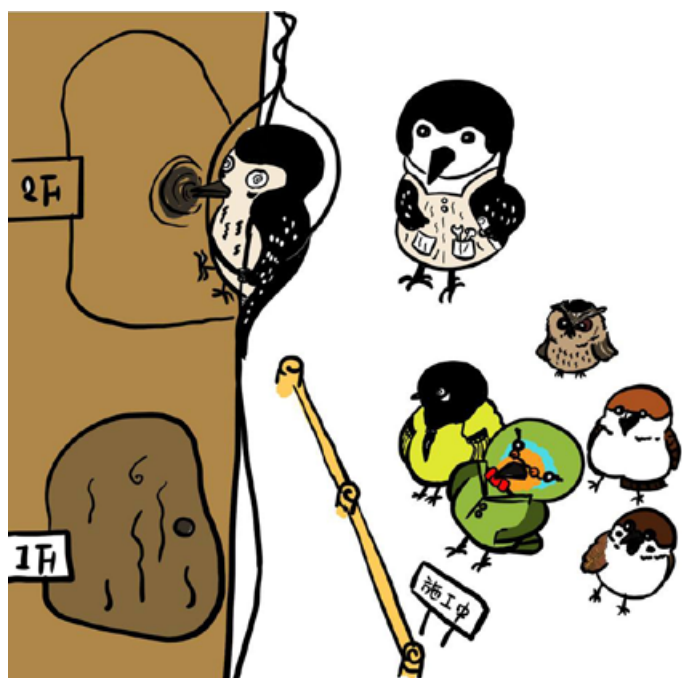
最後一種就是地棲型的地啄木 (*Jynx torquilla*)，這是屬於會遷徙的啄木鳥，在台灣是稀有的冬候鳥，在金門則較為普遍，偏向在海邊的樹林或是草原上活動。這個屬的頭部可以轉動 180 度，並且有帶有黏液的舌頭，啄開蟻穴後將舌頭伸進去黏取螞蟥食用，所以這屬中文稱為蟻鴛屬。*Jynx* 源



地啄木，攝於屏東東港。看到時天色已經很昏暗了，古老的數位相機已經盡力了。

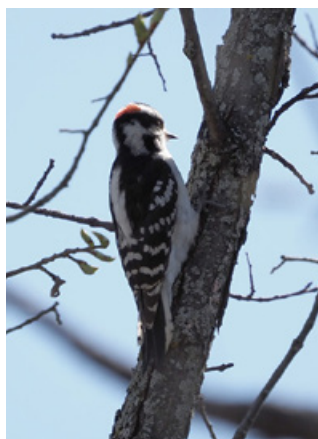
自拉丁文，是咒語的意思，說的就是扭動脖子的樣子很像在施咒，呼應這個屬的頭部特別的動作。種小名也是扭動、轉動的意思。很有意思的學名，都是在形容轉來轉去、扭來扭去的樣子。地啄木有六個亞種，台灣的是 *Jynx torquilla chinensis*，亞種名一目瞭然。主要繁殖地是從東西伯利亞到庫頁島再到日本北海道，南限是蒙古北邊到中國的東北。

冬天則向南遷徙。小啄木鳥在台灣海拔 2000 公尺以下相當常見，各位不妨在公園散步時、在郊山運動時，多留意一下身邊的聲音。如果有聽到敲木頭的聲音或是有聽到比較急促的高頻音，可以找找看他的身影。他可是台灣最容易觀察到的啄木鳥，可以藉由觀察他啄木頭、攀爬的動作，更進一步的理解啄木鳥的生態習性。還沒有出門看小啄木沒關係，可以看看鳥店長畫的可愛的小啄木。這期因為寫太多沒寫到樹洞的利用，所以鳥店長就畫了小啄木工班在樹上施工，底下五色鳥仲介帶了一些會利用次級樹洞的鳥類在看房子。很有意思的呢！

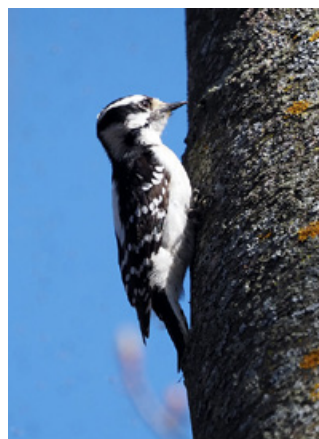


啄木鳥所鑿的空洞也是許多鳥兒築巢的好所在，因此就搞笑的畫了啄木鳥建築班施工中，五色鳥房仲帶看預售屋的插圖。由上至下依序為領角鸛、青背山雀山麻雀、五色鳥和麻雀，牠們都是會利用次級樹洞的鳥兒！（鄧佩貞 繪）

同場加映，前面提到台灣最小的是小啄木，北美最小的是絨啄木（Downy woodpecker）



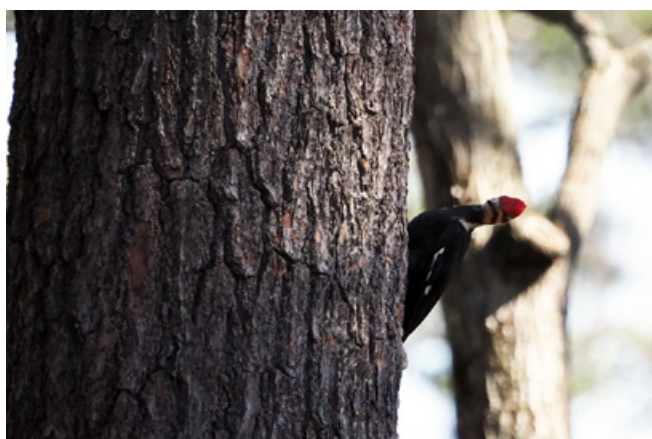
絨啄木（雄），攝於渥太華加拿大。雄鳥的頭頂會有一小塊紅斑。



絨啄木（雌），攝於渥太華加拿大。雌鳥頭頂就沒有紅斑了。



北美黑啄木，攝於渥太華加拿大。全黑的啄木北美沒有喔！這個黑啄木還是有白色的部份。



北美黑啄木，攝於渥太華加拿大。還記不記得五色鳥是粗脖子鳥？這張就可以知道啄木鳥的脖子有多細了。

鳥類週報第十四週 麻雀科 *Passeridae*

文圖 By 雛鳥藝文空間

麻雀科到底有哪些成員呢？我想各位應該會說，啊！不就是麻雀？這週寫麻雀是不是在歹戲拖棚啊？當然不是，這也就是我們為什麼要寫鳥類週報的原因之一。大家對生存於我們周遭的生物應該是已經到了一種視而不見的境界了，每天這麼忙，走路的時候、開車的時候都在想事情，哪有時間看外面？更別提停下來仔細地看看外面了。加上網路一直提供的海量資料、腦袋裡都不斷地在上演各種小劇場，對外界環境有看沒有到只是剛剛好而已。因此想讓各位多了解每天視而不見的可愛鳥類。

現在所稱的麻雀科是指舊世界的麻雀。在生物地理上有著舊世界與新世界之分。舊世界就是亞洲、歐洲、非洲，新世界則是後來新發現的美洲大陸。哥倫布因為發現了美洲大陸，所以稱為新世界。但他又將各地不同的物種在新舊大陸上亂遷移，因此還有所謂的哥倫布大交換。對整個地球的疾病、物種、甚至人類都有著極大的改變。另外，個人認為澳洲大陸是一個很神奇的存在，如果有機會聊到版塊、各大洲位置上的變動時再來聊聊，真的是一個很奇蹟似的島嶼。

當年有一艘貨輪不小心將麻雀從台灣載去了澳洲，結果引起澳洲無數愛鳥人士的聚集。因為當處屬於港內禁區，賞鳥人士強烈要求布里斯本港口管理局開放賞鳥。該麻雀一定心花朵朵開啊！想不到在台灣的特鳥還是普到不能再普的特鳥，到了澳洲居然造成大轟動，連港口管理局的電話都被打爆了。

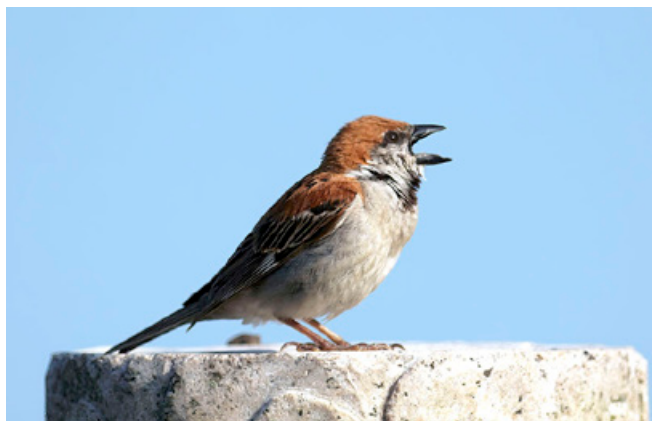
總之，我們今天說的麻雀是指舊世界的麻雀，目前分為 6 屬 43 種。嚇到了吧？路邊跳來跳去的麻雀居然有 43 種！和麻雀關係比較接近的有雀科 (*Fringillidae*) 和鵲鴝科 (*Motacillidae*)，以及一些新世界的鳴禽。以前麻雀是屬於文鳥科的，現在是麻雀科，而原來的斑文鳥、白腰文鳥、黑頭文鳥

則改成梅花雀科 (*Estrildidae*)。

麻雀科底下有六屬，台灣只見得到一屬兩種。一個是大家最熟悉的麻雀 (*Passer montanus*)，另一個就是很不熟悉的山麻雀 (*Passer cinnamomeus*)。



麻雀，攝於金門



山麻雀公鳥，攝於嘉義大埔



山麻雀母鳥，嘉義大埔

至於家麻雀 (*Passer domesticus*) 台灣就十分的罕見了，因此就不討論了。



家麻雀公鳥，攝於渥太華、加拿大。這在新世界屬於外來種。



家麻雀母鳥，攝於渥太華、加拿大。這在新世界屬於外來種。

麻雀的屬名 *Passer* 就是拉丁文的麻雀，而 *montanus* 就很有意思了，這在拉丁文裡面是山的意思，也就是他應該叫做山麻雀。等等，那台灣的山麻雀又是誰呢？台灣山麻雀的種小名是 *cinnamomeus*，這個字本身就是複合字，是肉桂色的意思，滿符合山麻雀的英文 Russet sparrow。不像麻雀這樣掛羊頭賣狗肉。麻雀的種小名是山的意思，他的英文名卻是 Eurasian tree sparrow，好歹中文名應該是叫樹麻雀才對嘛！

麻雀有 9 個亞種，山麻雀則是有 3 個亞種。台灣的山麻雀是屬於：*Passer cinnamomeus rutilans*。各位一定很好奇，我很少提到亞種，為什麼山麻雀會特別提到？因為要和各位解說山麻雀的特徵，說半天不如來看亞種名 *rutilans*。這個拉丁文很有意思，就是發紅的意思，甚至可以說是略帶閃亮光澤的微紅色。這樣各位可以想像出山麻雀的樣子了

吧？就是很像麻雀，但是羽色是在肉桂色（種小名說的）中帶著略閃亮的微紅色（亞種名）。



山麻雀公鳥，攝於層雲峽北海道日本。日本和台灣山麻雀是屬於同一個亞種。

很生動的描述吧？這樣就不會再覺得學名很無聊，或是覺得光看物種外型描述無法想像了。不過山麻雀和麻雀不一樣，山麻雀是雌雄不同色，麻雀則是同色。那麻雀呢？分布於台灣的是 *Passer montanus saturatus* 亞種，*saturatus* 就是豐富的顏色。其實台灣的麻雀真的很漂亮，只是大家都沒有注意罷了。



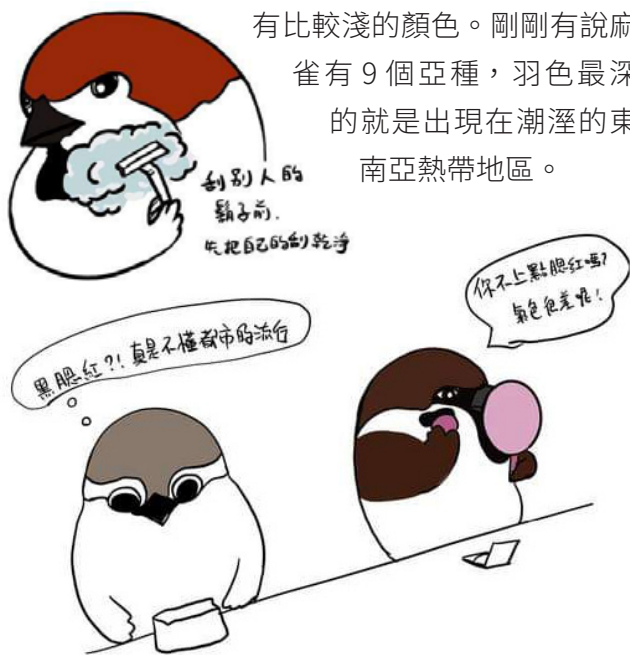
麻雀（黑化），攝於澎湖、馬公。黑化麻雀和旁邊正常麻雀一比就知道麻雀有多麼多彩了。



這就讓我想起一個故事，有一次去獸醫院找學長聊天，不知為何獸醫院裡面有一籠的麻雀，學長誑我說是非洲的一種雀鳥，還問我說好不好看？那時我才剛開始看鳥，說良心話，我還真的沒有正眼瞧過麻雀，那一次仔細的看了又看，真的覺得他還滿漂亮的。

後來學長才笑著說是麻雀啦！不要因為他是普鳥就不好好的、不認真的看他。

不過既然提到了台灣麻雀是豐富的顏色，就不得不提一下 Gloger's rule。這是說分布在熱帶的生物會有比較深的顏色，而分布在比較寒冷的地區會有比較淺的顏色。剛剛有說麻雀有 9 個亞種，羽色最深的就是出現在潮溼的東南亞熱帶地區。



山麻雀對我來說就是比較悲慘的故事了。以前山麻雀還不少，只要走到山裡面，淺山就夠了，就會看到山麻雀，我從霧台到清境都看過滿滿的山麻雀。那時山麻雀多到我很少拍他，拍的不好也都直接把幻燈片丟掉。反正隨時都可以再拍到，就像麻雀一樣，那時真的是這樣想。結果才沒多少年，現在台灣山麻雀大概只剩下幾個比較穩定的棲地了。山麻雀在台灣鳥類紅皮書裡面可是被列為國家瀕危等級，全台估計不到 1000 隻。幸好這些年有政府及學術界出手相救，在以前我上課時常提到山麻雀，我總是說這是我們在有生之年極有機會看到在台灣滅絕的生物之一。目前在廣設巢箱、保育行動之下，數量有機會可以回升。但是不要以為麻雀這

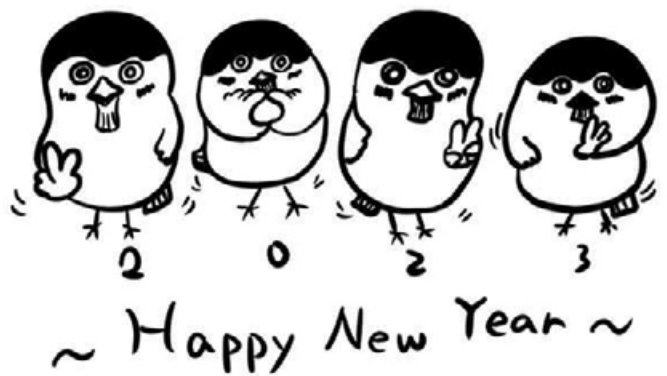
種超級普鳥就沒事了喔！根據特生中心的調查，北部可是少了 40% 的數量。各位或許會覺得沒有麻雀又不會怎樣？

借用裴家騏老師說石虎的話，他說如果一片農地無法讓石虎健康的長大，那片農地上種出來食物怎麼會安全？我也要說，如果一個環境糟糕到連最不挑的麻雀都無法生活下去，人們怎麼可能可以健康快樂的在那邊生活？

同場加映普遍常見的新世界麻雀 Chipping Sparrow (*Spizella passerina*)，屬 Passerellidae 科，在 iNaturalist Taiwan 上稱為美洲鴉科，wiki 稱為雀鴉科。種小名 *passerina* 就是拉丁文『麻雀般』的意思。



Chipping Sparrow，攝於渥太華加拿大。新世界麻雀。



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稀有鳥種發現記錄——黑背三趾翠鳥

By 陳靜文

中名 黑背三趾翠鳥 英名 Black-backed Dwarf-Kingfisher 學名 *Ceyx erithaca*

▶▶ 基本資料

發現日期：2021 年 6 月 4 日

發現地點：新北市林口區興林一街 91 巷近路口

天氣情況：陰

鳥是否逆光：否

觀察時間：上午約八時至九時

觀察者與鳥的距離：一公尺內

當時所使用的器材：無

▶▶ 請以文字敘述所見之鳥，說明其大小體型、體色、行為、鳴聲，活動地區之棲地描述，以及與其他鳥類一起行動

王傑民先生於早上遛狗時，行經興林一街 91 巷口（約一百公尺外即是淺山



黑背三趾翠鳥 拾獲位置

森林），發現路邊有隻體型約 15 公分色彩鮮豔的小型鳥，在地上蹲坐不動，本以為會自行離開未加以理會，約一小時後折返，該鳥仍在原處，疑似受傷，遂捕捉安置並通報桃園市野鳥學會，送交救傷。王先生對於觀察野生動物及鳥類有興趣，但涉獵粗淺，

並未發現是稀有鳥種，僅由特徵認為應是翠鳥那類。將鳥送至桃鳥之後，經獸醫師及志工判斷是黑背三趾翠鳥。

▶▶ 補充資料

1. 在鑑定過程中層考慮哪些鳥種？

三趾翠鳥

2. 觀察者之賞鳥經驗與資格？

偶爾接觸觀察自然生態、關心野生動物及環境

3. 辨識撰寫者之觀鳥經驗與資格？

觀鳥經驗十多年

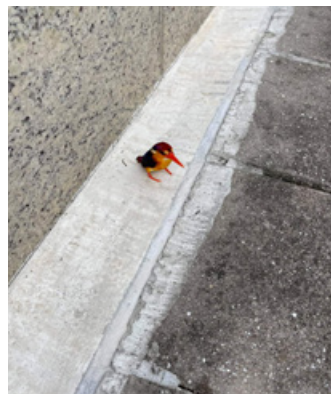
▶▶ 是否有其他證據可以協助鑑定，若有是何種證據？存放於何處？

發現現場照片及救傷照護病例照片，存於 google 雲端硬碟 <https://drive.google.com/drive/folders/1yhmjNmgMTjaZZI55KJs96ORWTsgV7dcj?usp=sharing>

▶▶ 填表者資料：陳靜文 0921169292

▶▶ 共同發現者：無

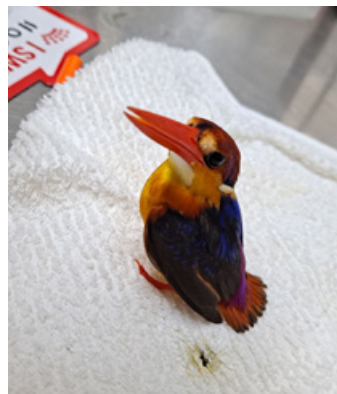
▶▶ 參考資料：eBird，2020 台灣鳥類名錄



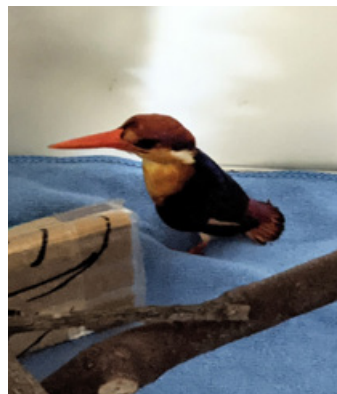
黑背三趾翠鳥 拾獲現場



黑背三趾翠鳥 安置通報



黑背三趾翠鳥 診檯



黑背三趾翠鳥 療養中

稀有鳥種發現記錄——金鵟

By 羅美玉

中名 金鵟 英名 Golden eagle 學名 *Aquila chrysaetos*

► 基本資料

發現日期：110 年 10 月 27 日～10 月 28 日

發現地點：馬祖東引

天氣情況：晴

鳥是否逆光：否

觀察時間：累計 4 分鐘

觀察者與鳥的距離：100 米左右

當時所使用的器材：10 倍望遠鏡及

Canon EOS90D 鏡頭 400 定焦

► 請以文字敘述所見之鳥，說明其大小體型、體色、行為、鳴聲，活動地區之棲地描述，以及與其他鳥類一起行動

東引地區四周都是海洋，島上四周均是峭壁斷崖，樹林多於道路，隨時都可看到猛禽在空中飛來飛去。10 月 27 日當天上午 8:39 突然出現在隊史館附近天空，距離 100 米以內，僅出現 26 秒即飛去。尾羽黑白 2 色末端黑色甚寬，

指叉 7 枚，頭部有金黃色羽毛，翼下有白斑。

10 月 28 日上午 9:26 又再度出現在中柱島往西引的天空，距離 100 米以上，因為風大很大，金鵟逆風定點一會兒，後來往北方飛去，出現時間 104 秒。

10 月 28 日上午 10:36 又出現在西引，在空中飛翔並與東方鶯追逐，出現時間 104 秒，最近距離 100 米以內。

► 補充資料

1. 在鑑定過程中層考慮哪些鳥種？

原本以為是「白肩鵟」

2. 觀察者之賞鳥經驗與資格？

賞鳥 29 年，擔任賞鳥解說員 27 年

3. 辨識撰寫者之觀鳥經驗與資格？

同上

► 是否有其他證據可以協助鑑定，若有是何種證據？存放於何處？

拍攝 100 多張照片。

► 填表者資料：羅美玉

► 共同發現者：陳英俊

► 參考資料：無



稀有鳥種發現記錄——白鵜鶘

By 林哲安

中名 白鵜鶘 英名 Great White Pelican 學名 *Pelecanus onocrotalus*

► 基本資料

發現日期：2021 年 2 月 11 日

發現地點：金門縣金沙鎮榮湖

天氣情況：陰

鳥是否逆光：否

觀察時間：15 分鐘

觀察者與鳥的距離：50 至 150 公尺

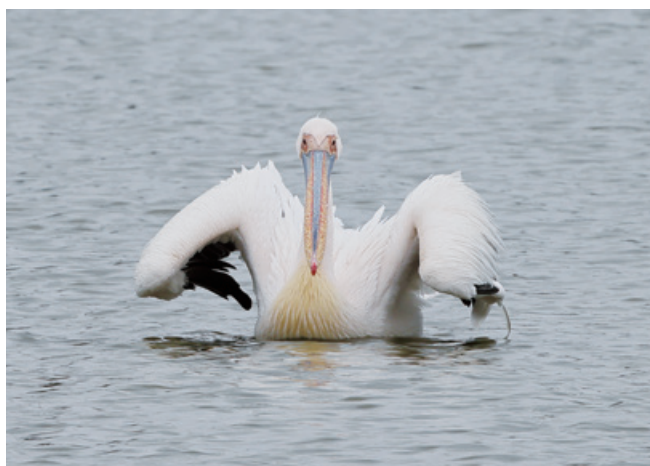
當時所使用的器材：雙筒望遠鏡、

單眼相機 + 500mm 鏡頭

► 請以文字敘述所見之鳥，說明其大小體型、體色、行為、鳴聲，活動地區之棲地描述，以及與其他鳥類一起行動

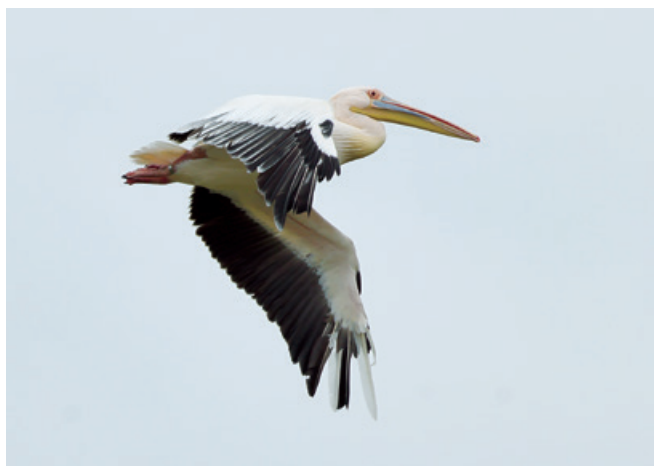
上午 11 點 55 分，鳥友洪廷維傳來訊息：有人在臉書 (facebook) 的「靠北金門」社團貼出一張鵜鶘照片。

貼文者應不是賞鳥人，照片像手機拍攝，鵜鶘很小隻，貼文者本人亦無法肯定此鳥是否為鵜鶘。但正因為鳥小、照片有帶景，可以看出拍攝地點就是榮湖。



我與同行者立刻驅車前往榮湖，於 12 點 05 分抵達，果然看到一隻白色大鳥在水上游，正是鵜鶘沒錯，景也與「靠北金門」社團中完全相同。

鵜鶘與人（道路）保持 50 至 100 公尺的距離，除了在水上緩緩「漂」，沒有觀察到其他行為，也沒有在警戒。湖上還有小鸕鶿，但跟鵜鶘沒有任何互動。第一眼看到時沒感覺，但拿起望遠鏡並用長鏡頭拍攝時，便覺得這隻鵜鶘跟我先前看過的卷羽鵜鶘不太一樣，身體



明顯白，眼睛周圍及嘴喙的顏色也不一樣。大約 10 分鐘後，鵜鶘無預警起飛，在湖畔繞了兩三圈，隨後越飛越高，往太武山方向飛去，消失在視線中。

飛行時可看出飛羽有明顯破損，且不像正常的換羽，檢視照片發現除了飛羽異常破損，右腳有一枚無刻字的金屬環，這些特徵讓人懷疑是籠中逸鳥。然而牠的飛行能力非常好，單就飛行而言看不出異樣，加上一些繫放個體右腳可能也有無刻字金屬環，故還是帶著一點點野生鳥類的希望來看待這隻鵜鶘。

鵜鶘飛離後，馬上將照片傳給鳥友洪廷維及趙偉凱，本人也開始翻資料，三人共同認定此鳥為白鵜鶘（*Pelecanus onocrotalus*）。

回到住處後，除了整理相片，也同步以臉書留言及私訊聯繫「靠北金門」社團的貼文者，貼文者本名廖雅美，本人除證實鵜鶘照片為手

機拍攝外，亦同意共同列名稀有鳥類發現紀錄表中。再次感謝她的社團貼文與大力協助。

►► 補充資料

1. 在鑑定過程中層考慮哪些鳥種？

卷羽鵜鶘（*Pelecanus crispus*）

2. 觀察者之賞鳥經驗與資格？

賞鳥 20 年，在臺灣累積觀察鳥種 505 種、世界觀察鳥種 930 種

3. 辨識撰寫者之觀鳥經驗與資格？同上

►► 是否有其他證據可以協助鑑定，若有是何種證據？存放於何處？

停棲及飛行照數張，存於本人之 flickr 相簿及硬碟中，相簿連結：https://www.flickr.com/photos/spoonduck/albums/72157718370821912?fbclid=IwAR1IPRyhnZL_o7otqD4su7-CS0FD_HaYJHT88quFG4_nqgtfw8JpfalGkj0

協助鑑定者：洪廷維、趙偉凱。共同參考 eBird 鳥類資料庫

►► 填表者資料：

林哲安 0905-534141 spoonduck529@gmail.com

►► 共同發現者

廖雅美、吳如峰、黃貞毓、陳韋佑、陳昱典

►► 參考資料

eBird 鳥類資料庫 <https://ebird.org/species/grwpell>

稀有鳥種發現記錄——所羅門鸛

By 羅比琳

中名 所羅門鸛 英名 Heinroth's Shearwater 學名 *Puffinus heinrothi*

► 基本資料

發現日期：2018 年 5 月 27 日

發現地點：台東縣成功鎮三仙台

天氣情況：晴天

鳥是否逆光：海面反光，略為逆光

觀察時間：1 小時 30 分

觀察者與鳥的距離：300 至 500 公尺

當時所使用的器材：Canon 7D2 + Canon 300mm/
F2.8 + 2 倍鏡，SWAROVSKI
EL 12×50

► 請以文字敘述所見之鳥，說明其大小體型、體色、行為、鳴聲，活動地區之棲地描述，以及與其他鳥類一起行動

體型感覺不大。因距離甚遠，海面上無比對標的物，無法確定大小。

額頭平、嘴黑細長、喉白、尾短、身型細長、翼下覆羽白、有換羽的白斑。

當天我們一行四人在三仙台礁岩上觀察海鳥，約 12:30 見到此鳥落在很遠的海面。

16:30 左右比較靠岸，當時只剩二人觀察。

約五點左右飛往八拱橋附近，將近六點我們離開時，鳥都單獨在海岸邊踩水短飛，可能是在覓食。

► 補充資料

1. 在鑑定過程中層考慮哪些鳥種？

考慮過長尾水薙、短尾水薙和灰水薙。看照片感覺尾羽磨損嚴重，腳好像有些露出，因此有懷疑過短尾水薙。短尾水薙、長尾水薙先前有幾次觀察經驗，體型都蠻大的，應該不是。灰水薙圖鑑看來體型也是大，且比較圓胖，所以可以排除。翻遍圖鑑，完全沒有方向。感謝蕭世輝先生熱心提供資料及經驗，才讓我了解有所羅門鸛這種鳥種。身型細長可以排除短尾水薙和灰水薙。額頭平、嘴黑細長和喉部白確定不是長尾水薙。



2. 觀察者之賞鳥經驗與資格？

賞鳥 8 年多，台灣鳥類記錄 565 種，世界鳥類記錄 866 種。

3. 辨識撰寫者之觀鳥經驗與資格？

請教潘致遠先生協助辨識

► 是否有其他證據可以協助鑑定，若有是何種證據？存放於何處？

<http://nc.biodiv.tw/bbs/showthread.php?t=61563&page=11>

相關照片請參考：

1. <https://ebird.org/checklist/S81519260>

2. <https://flic.kr/s/aHsmmKMXJm>

►► 填表者資料：

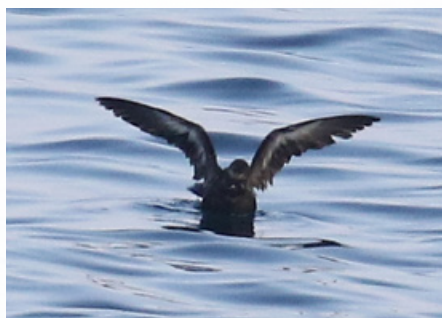
1. 姓名：羅比琳
2. 電子信箱：john_liu_uma@yahoo.com.tw
3. 地址：新竹市新香街 356 巷 43 號
4. 電話：0915-879776

►► 共同發現者

劉連福，賞鳥經驗 8 年以上

►► 參考資料

<https://notornis.osnz.org.nz/sea-observations-heinroth's-shearwater-puffinus-heinrothi>



The Sandwich Tern in Qi Gu

By Steve Mulkeen

中名 白嘴端燕鷗 英名 Sandwich Tern 學名 *Thalasseus sandvicensis*

Species: Sandwich Tern *Thalasseus sandvicensis*

Location: Qi Gu. Seen initially from the 'seawatching spot' (23.098410, 120.035812) and then relocated on the sandbar (23.062052, 120.041059).

Date: 14th Jul 2013.

Observers: Steve Mulkeen (SMM) *et al.*

Time: Various times, afternoon.

Distance from bird: Various distances, always over 100m.

Optics: 10×40 Leica Ultravid,
30×80 Optolyth TBS80 (SMM).

Weather: Overcast, windy. Sea rough after recent passage of Typhoon Soulik.

Previous experience of species:

Good. Sandwich Tern is a locally common summer visitor to the UK.

Previous experience of similar species:

Very good. Most (northern) Holarctic tern species seen previously in Europe, North America, and East Asia. Extensive experience of Greater Crested Tern, most similar Gull-billed Tern, and Roseate Tern ssp. *bangsi*.

Account of find:

As this bird was seen now eight years ago, my recollection of it is hazy! Fortunately, photos survive, and the record is not in any doubt. I had been tempted into seawatching on 14th by a typhoon which had passed through the Taiwan Strait the day before (Soulik). As the winds had calmed

by late morning, and conditions were such that it was safe to venture out, I headed straight to my usual seawatching spot in Qi Gu. There was little of note initially, except for a rather steady stream of Greater Crested Terns heading south offshore. All of these were heading towards the sandbar, where many rest up in rough seas. Not long into the seawatch, a pale-looking *Thalasseus* tern flew south in the company of a small group of Greater Crested Terns. In the 'scope, I had been able to make out the relative size (similar to Greater Crested Tern), very pale grey (almost whitish) upperpart tone, and blackish 'wedge' on the outer primaries, all of which led me to believe I was looking at a Chinese Crested Tern (a very rare but annual visitor offshore). However, I was perplexed by the fact that I had not been able to make out the bright yellow bill, which would normally be obvious at the kind of range I had seen this bird. As I was not convinced by the ID (but could think of no alternatives), and as there seemed little prospect of anything better passing by that day, I decided it would be worth driving down to the sandbar and making an effort to relocate this interesting tern (Chinese Crested Tern after all would be well worth seeing).

It didn't take long with the 'scope to pick out a pale *Thalasseus* tern standing in amongst a group of Greater Crested Terns about half way out on the sandbar. One look at the relative prominence of the yellow-green bills of these quickly convinced me that the bill of the mystery tern was anything but



Adult summer **Sandwich Tern**, Qi Gu, (Jul 2013) . Note shaggy crest, prominent yellow tip to black bill, and tip of tail falling well short of wingtip. (Photo: Da Chiao Lin) .

yellow; indeed, it appeared to be all black. It was at this point I began to suspect that the bird might be a Sandwich Tern, and made efforts to reduce the distance between myself and it to confirm. With each 100 metres or so I drew nearer the bird, I stopped to take a confirmatory look in the 'scope, and with each view the bird only looked more and more like a Sandwich Tern. Finally, at a distance of around 100 metres (at which point passage was blocked by a deep and fast-flowing creek rapidly emptying of floodwater), the yellow-tipped black bill and shaggy crest of an adult summer Sandwich Tern were clear. Certain of the ID, I quickly made a few phone calls around others whom I thought might be interested in seeing the bird, and fortunately Da Chiao Lin was nearby and able to get better shots of it than I could manage with the cheap camera I had at the time!

Description:

Size: Only slightly smaller than Greater Crested Tern, and similarly-proportioned/bulky. Obviously much larger than any of the locally-occurring *Sterna* terns.

Head and bill: Head large, with black forehead (except for narrow white band at bill base), crown, and nape; the elongated nape feathers



Adult summer **Sandwich Tern**, Qi Gu, (Jul 2013) . Note short tail, long narrow 'arm', and large dark primary 'wedge' formed by five outermost primaries. (Photo: Da Chiao Lin) .

forming a shaggy crest on the hind crown/nape. Remainder of head white. Bill long, rather slender, black with prominent yellow tip.

Body: Mantle very pale grey, strikingly pale compared to Greater Crested Tern, approaching e.g. Roseate Tern. Folded primaries contrastingly dark/black. Rump either very pale grey or white. Underparts white. Tail white, obviously forked, but rather short.

Bare parts: Bill black with prominent yellow tip. Legs black, long-looking when standing.

Wing: Very pale grey when opened (pale enough to suggest Chinese Crested Tern) . Outer five or so primaries black, contrasting with newer pale grey inner primaries, and producing a 'nick' in the wing mid-primaries (or dark 'wedge' on outer primaries) .

In flight: Structurally similar to Greater Crested Tern, with rather deep chest giving front-heavy look (as if wings positioned behind mid-point on body) . Wings long (especially 'arm'), narrow, somewhat 'bandy-looking'. Tail short in flight (without obvious streamers) .

Additional:

I am aware that a case has been made for the Qi Gu Sandwich Tern being nothing more than

a misidentified Roseate Tern. Although some Roseate Terns do show features which overlap with Sandwich Tern (chiefly bare parts, i.e. a black bill with a prominent yellow tip and blackish-looking legs), even in mid-summer, Roseate Tern can be excluded in the photos above by both the shaggy crest and the short tail, neither of which are shown by Roseate Tern (the tail extends beyond the tips of the folded primaries in that species). Confusion

between these two is only ever possible when looking at lone birds in photographs. In the field, no such potential for confusion exists given the much larger size of Sandwich Tern (as well as e.g. differences in flight action). However, as this point has been raised, images showing this bird with other terns (in which relative size can be judged) are included below.

Below: 'Sandwich-like' Roseate Tern and supporting images of the Qi Gu Sandwich Tern.



Above: Pair of **Roseate Terns** (Qi Gu, July). The lower bird shows plumage features associated with Sandwich Tern, but note long tail, short 'arm', and much narrower wing 'wedge' formed by outermost three primaries only.



Above (L-R): Adult Greater Crested Tern, adult Little Tern, adult Black-naped Tern, adult summer **Sandwich Tern**, first-summer Greater Crested Tern. Note obvious size and structural differences between these birds.



Above: Pair of **Roseate Terns** (Qi Gu, July). The lower bird shows plumage features associated with Sandwich Tern, but note long tail, short 'arm', and much narrower wing 'wedge' formed by outermost three primaries only.



Above (L-R): Adult Little Tern, adult Black-naped Tern, adult summer **Sandwich Tern**. Note obvious size and structural differences between these birds (Black-naped Tern is approx. same size as Roseate Tern).

Interestingly, a solitary adult summer Sandwich Tern was present (and photographed) on islands off Zhejiang Province, east China, in May 2015 and May 2016 (Source: eBird). The observer writes in the record that this bird leaves the island in early July. An adult Sandwich Tern (also photographed) has wintered in western Guangdong Province from Dec 2018-Dec 2020 (at least) (Source: eBird). Given its extreme rarity in the western Pacific, it would not be surprising if all of these records (including the Qi Gu bird) relate to the same individual.

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