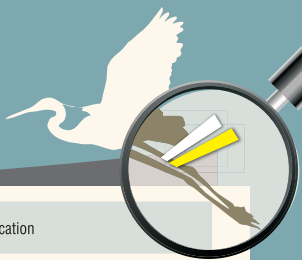


「東亞—澳大利西亞遷飛區」涉禽足旗顏色標識系統

Shorebird Colour Flagging Scheme in the East Asian-Australasian Flyway



腳上部 Upper Leg	腳下部 Lower Leg	國家 Country	地點 Location
黑 Black	黑 Black	緬甸 Myanmar	
黑 Black	藍 Blue	菲律賓 The Philippines	
黑 Black	綠 Green	泰國 Thailand	泰國半島及泰國灣 Thailand Peninsular & Gulf of Thailand
黑 Black	橙 Orange	印尼 Indonesia	爪哇及巴厘島 Java & Bali
黑 Black	白 White	中國 China	崇明島(新) Chongming Island (New)
黑 Black	黃 Yellow	馬來西亞 Malaysia	(建議 proposed)
黑 Black	無足旗 no flag		放置在一些裝有衛星追蹤儀器的雀鳥身上 Used on some birds carrying satellite tracking devices
藍 Blue	黑 Black	中國 China	海南-廣西 Hainan-Guangxi
藍 Blue	藍 Blue	日本 Japan	北海道北部 Komuke 湖 Lake Komuke, Northern Hokkaido
藍 Blue	綠 Green	蒙古 Mongolia	
藍 Blue	橙 Orange	日本 Japan	九州 Kyushu
藍 Blue	白 White	日本 Japan	東京灣 Tokyo Bay
藍 Blue	黃 Yellow	中國 China	渤海灣 Bohai Bay
藍 Blue	無足旗 no flag	日本 Japan	北海道東部春國岱 Shunkunitai, Eastern Hokkaido
綠 Green	黑 Black	柬埔寨 Cambodia	
綠 Green	藍 Blue	中國 China	江蘇 Jiangsu
綠 Green	綠 Green		(未分配 not allocated)
綠 Green	橙 Orange	中國 China	鴨綠江 Yalujiang
綠 Green	白 White	新加坡 Singapore	
綠 Green	黃 Yellow	澳大利亞 Australia	卡奔塔利亞灣 Gulf of Carpentaria
綠 Green	無足旗 no flag	澳大利亞 Australia	昆士蘭州 Queensland

腳上部 Upper Leg	腳下部 Lower Leg	國家 Country	地點 Location
橙 Orange	黑 Black	印尼 Indonesia	蘇門答臘 Sumatra
橙 Orange	藍 Blue	澳大利亞 Australia	塔斯馬尼亞 Tasmania
橙 Orange	綠 Green	澳大利亞 Australia	新南威爾士州 New South Wales
橙 Orange	橙 Orange		(未分配 not allocated)
橙 Orange	白 White	韓國 South Korea	黃海東部(舊) Eastern Yellow Sea (old)
橙 Orange	黃 Yellow	澳大利亞 Australia	南澳大利亞州 South Australia
橙 Orange	無足旗 no flag	澳大利亞 Australia	維多利亞州 Victoria
白 White	黑 Black	中國 China	崇明島(舊) Chongming Island (old)
白 White	藍 Blue	中國 China	台灣 Taiwan
白 White	綠 Green	新西蘭 New Zealand	南島 South Island
白 White	橙 Orange	韓國 South Korea	黃海東部 Eastern Yellow Sea
白 White	白 White		(未分配 not allocated)
白 White	黃 Yellow	中國 China	香港 Hong Kong
白 White	無足旗 no flag	新西蘭 New Zealand	北島 North Island
黃 Yellow	黑 Black	俄羅斯 Russia	堪察加半島 Kamchatka
黃 Yellow	藍 Blue	澳大利亞 Australia	北部地方 Northern Territory
黃 Yellow	綠 Green	越南 Vietnam	
黃 Yellow	橙 Orange	澳大利亞 Australia	西澳大利亞州西南部 SW Western Australia
黃 Yellow	白 White	俄羅斯 Russia	庫頁島 Sakhalin Island
黃 Yellow	黃 Yellow		(未分配 not allocated)
黃 Yellow	無足旗 no flag	澳大利亞 Australia	西澳大利亞州北部 N Western Australia

資料來源 Source of Information: 東亞—澳大利西亞遷飛區夥伴關係 Partnership for the East Asian-Australasian Flyway

個別的大型水鳥例如黑臉琵鷺，另有一套特定的腳環顏色標識系統。在香港環誌的琵鷺右腳會套上一個綠色環，刻有以A字開始的編號；韓國以K或E開始，台南以T開始，日本以J開始；而部份琵鷺的左腳則套上有獨特顏色組合的腳環，以分辨個別琵鷺。

There is also a specific colour-ringing protocol for Black-faced Spoonbills - their right leg will be fitted with a ring in green colour engraved with a set of number starting with letter A for Hong Kong, K or E for South Korea, T for Tainan and J for Japan. Many spoonbills also have a unique combination of colour rings on the left leg for ease of individual recognition.



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香港環誌的黑臉琵鷺的右腳有一個綠色環並有一個以A字開始的編號，而左腳的顏色組合令分辨個別琵鷺更容易。Black-faced Spoonbills ringed in Hong Kong are marked by a green ring with a code starting with "A" on its right leg. The number on the ring and the colour combination on the left leg allow individual recognition.

韓國 South Korea	香港 Hong Kong	台南 Tainan
K/E	A	T 或/or
日本 Japan	朝鮮 North Korea	
J	或/or	

黑臉琵鷺右腳環顏色與標識編號的起始字母
Colour protocol and alphabet for rings fitted on the right leg of Black-faced Spoonbill

資料來源 Source of Information: Chan et al. 2010. International Single Species Action Plan for the Conservation of Black-faced Spoonbill (*Platalea minor*). BirdLife International Asia Division, Tokyo, Japan; CMS Secretariat, Bonn, Germany. 74 pages. Technical Report Series 22.

你可以

把有關水鳥環誌的觀察資料，包括相片(包括水鳥腳上的足旗或金屬環的編號及顏色)、鳥種和地點，電郵香港觀鳥會 (legflags@hkbws.org.hk)，或把資料上載至香港觀鳥會的網上討論區，網址為www.hkbws.org.hk/BBS。

如發現野鳥被困、受傷或死亡，可致電1823通知漁農自然護理署跟進。

多練習辨識及攝影水鳥
及參與水鳥監察活動

You can

Send an e-mail (legflags@hkbws.org.hk) to the Hong Kong Bird Watching Society (HKBWS) and attach your observation record including pictures (which shows numbers on the leg-flag or metal ring), bird species and location of waterbirds; or upload the information to the HKBWS forum at www.hkbws.org.hk/BBS

If you encountered wild birds being trapped, injured or died, please contact Agriculture, Fisheries and Conservation Department (AFCD) at 1823 to follow up.

Practice more on waterbird identification and photography, and participate in waterbird monitoring activities

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水鳥遷徙

Waterbird Migration



Photo courtesy of Jemi & John Holmes (攝影: 黃亞萍 孔思義)

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香港觀鳥會
The Hong Kong
Bird Watching Society

水鳥是泛指在水體或其附近活動並賴以維生的雀鳥，全球約有800多種，香港約有110種，包括以下類別：鸕鶿、鸕鶿、鷺、鴨、琵鷺、秧雞、鴛和鶉、鷗和燕鷗。根據近年的調查結果，有多達7萬至9萬隻水鳥在香港新界西北米埔內后海灣一帶的濕地越冬；春秋兩季，米埔后海灣也有2萬至3萬隻過境遷徙水鳥的紀錄。

Waterbirds is a general term denoting birds that are dependent on water bodies and their surroundings for living. There are about 800 species of waterbirds in the world, about 110 of which have been recorded in Hong Kong, including grebes, cormorants, egrets, herons, ducks, spoonbills, rails, coots, plovers, sandpipers, gulls and terns. In recent years, about 70,000 to 90,000 wintering waterbirds have been recorded in the wetland areas of Mai Po Inner Deep Bay in the northwest New Territories of Hong Kong. A further 20,000 to 30,000 passage migrant shorebirds also used Deep Bay as a migration stopover each year.



大濱鶉在西伯利亞繁殖，最遠飛抵澳洲越冬
Great Knot breeds in Siberia, with most birds spending the winter in northern Australia.

© 盧嘉孟 Lo Kar Man



青頭潛鴨是后海灣稀少的冬候鳥，由於數量銳減，現時已被國際自然保育聯盟列為「極度瀕危」鳥種
Baer's Pochard is a rare winter visitor to the Deep Bay area. Due to rapid decline of its global population, it is now listed as "Critically Endangered" by IUCN

© Allen Chan

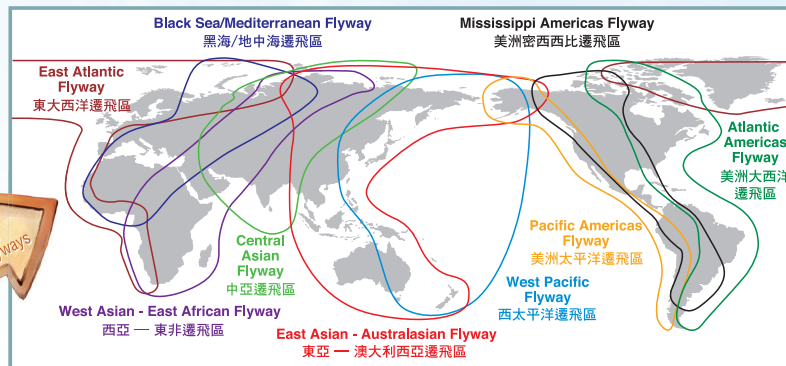
遷徙與遷飛區



Migration and Flyway

為了適應季節轉變和躲避寒冬，很多在北半球棲息的水鳥都會在每年冬天來臨之前，飛往較溫暖的南方越冬，待翌年春天再返回北方繁殖。候鳥每年周而復始來往繁殖地與越冬地的行為通稱為「遷徙」。

候鳥遷徙時途經的不同地點稱為「中途站」，這些遷飛路線以及中途站所覆蓋的地理範圍稱為「遷飛區」或「飛行路線」。現時全球共有8個主要候鳥遷飛區，其中最大的「東亞—澳大利西亞遷飛區」覆蓋約22個國家及地區，由北方的俄羅斯遠東地區和阿拉斯加向南延伸至東亞和東南亞，直至南面的澳洲和紐西蘭。香港位於這個遷飛區的中間，是很多候鳥其中一個重要的中途站。



To escape the bitter northern winter, waterbirds have evolved a strategy to fly south every autumn to their warmer winter quarters, returning north in the next spring to breed. This regular back and forth movement between the northern breeding grounds and the southern wintering grounds every year is known as 'migration'.

Migratory waterbirds stopover en route at various places that are known as 'staging areas'. The migratory routes and stopover sites can be generally grouped geographically into 'Flyways'. There are a total of 8 major flyways in the world. The East Asian-Australasian Flyway is the largest of these and spans an area from Russia and Alaska in the north, through east and southeast Asia to Australia and New Zealand in the south. This flyway covers about 22 countries or regions. Hong Kong is located about midway and serves as an important staging area for many migrants.

追蹤遷徙水鳥

Tracking of migratory waterbirds

研究人員捕捉、標識和繫放遷徙水鳥，目的是研究牠們在遷徙時的路線與遷徙規律。現時研究人員使用的方法有多種，本小冊子介紹其中兩種市民常有機會在野外觀察到的方法：
(1) 環誌 (2) 遙測追蹤

Researchers capture, mark and release migratory waterbirds to study their migration routes and migratory pattern. There are several methods of marking the birds, this pamphlet introduces two methods that are commonly observed in the field:
(1) Ringing; (2) Telemetry tracking



彎嘴濱鶉的左腳附離套上金屬環，右腳脛部配上足旗，從足旗的顏色及安裝的位置，顯示研究人員曾於西澳大利亞州北部為這濱鶉套上腳環，而腳環上的編號(CPV)令研究人員即使在很遠距離也可以識別這隻雀鳥。
A Curlew Sandpiper with a metal ring on its lower left leg and a flag on its upper right leg. The leg flag colour and flagging location show that the sandpiper was flagged in north Western Australia. The code on the leg flag (CPV) allows identification of this bird at a distance.

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Jemi & John Holmes



香港使用的足旗顏色為「上白下黃」，圖中的紅腳鶉的右腳繫上編號N4的足旗，令我們更容易分辨個別雀鳥
The colour flagging protocol in Hong Kong is white (upper) and yellow (lower) on the right leg. The letter-number combination (N4) on this Common Redshank allows individual species identification.

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安裝於黑臉琵鷺腳上的無線電發報器
A radio transmitter has been fitted on the leg of a Black-faced Spoonbill



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(1) 環誌 Ringing

研究人員會把刻有特定編號的金屬環、有顏色的足旗或腳環套在水鳥的腳上，以便收集詳細資料，包括遷徙時間、途經、繁殖或越冬地點、以及停留時間等。有些研究(例如：涉禽、黑臉琵鷺)也會使用特定顏色組合的腳環或足旗標識系統，以便在野外辨識個別鳥種。

Researchers will put a metal ring engraved with individually-identifiable numbers, leg flags or colour rings on legs of waterbird in order to collect detailed information including time of migration, stopover, breeding or wintering locations and duration of the stopover. In some research schemes (e.g. Shorebird, Black-faced Spoonbill), different colour ring combinations or numbered rings/flags are used to distinguish individual species in the field.

(2) 遙測追蹤 Telemetry tracking

研究人員把無線電、衛星追蹤器或地理定位器安裝在水鳥身上後，便可以記錄有關水鳥遷徙的詳細資料，包括覓食和棲息情況。部份追蹤器使用具有全球定位的遙測技術，更能準確顯示雀鳥的遷徙路線、中途站以至繁殖地或越冬地的位置。

Researchers put radio transmitter, satellite transmitter or geolocator on waterbirds to collect migratory data, including foraging or roosting habitat of the waterbird species. Some transmitters that are incorporated with Global Positioning System (GPS) technology can locate precisely the migration route and stopover sites of waterbirds and their breeding or wintering locations.

安裝於鸕鶿背上的衛星追蹤器
A satellite transmitter has been fitted on the back of a Great Cormorant

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足旗顏色標識系統



Colour Flagging Scheme

在「東亞—澳大利西亞遷飛區」網絡內的研究人員會依照其國家或地區特定的足旗顏色標識系統進行環誌，以便觀察者辨識個別涉禽被環誌的地點。由2001年開始，香港使用的足旗顏色為「上白下黃」，套於涉禽右腳；而2010年開始，在香港使用的足旗均有英文字母或數字組合，以辨識個別涉禽。

Researchers in the East Asian-Australasian Flyway network follow a specific leg-flagging scheme, where each country or region has a specific colour combination, to allow observers to recognise the region where the individual shorebird was flagged. Since 2001, Hong Kong has adopted the colour combination of white (upper) and yellow (lower) flags on the right leg. Since 2010, a combination of letters and/or numbers are added to distinguish individual species.