

## 水鳥普查計劃 Waterbird Monitoring Programme

自1979年起，民間團體香港觀鳥會已開始監測后海灣的水鳥數量及分布。這項水鳥普查計劃於1997年起獲漁農自然護理署（漁護署）支持，其後於2004年成為外判項目，以統籌每月進行的調查，提供可比較的基線數據，作為管理米埔內后海灣拉姆薩爾濕地的參考資料。

Since 1979, the Hong Kong Bird Watching Society, a local organisation, has been monitoring the abundance and distribution of waterbird populations in the Deep Bay area. The Agriculture, Fisheries and Conservation Department (AFCD) has supported this Waterbird Monitoring Programme since 1997. From 2004, it became contract projects on coordination of monthly surveys, in order to provide comparable baseline information for conservation management of the Mai Po Inner Deep Bay Ramsar Site.

調查員正在點算濕地水鳥  
A surveyor is conducting waterbird survey

## 普查方法 Survey Method

普查方法如下：

1. 每次在相同地區及路線進行同步普查，逐種鳥種點算數量；
2. 每次在相似的環境情況進行普查，例如每月水鳥調查於漲潮時進行；
3. 普查範圍包括泥灘、紅樹林、魚塘、基圍、排水道及河溪；
4. 點算對象包括水鳥和依賴濕地維生的鳥種，後者包括翠鳥、猛禽、白頸鴉和絲光椋鳥。

The surveys are conducted using the following method:

1. A simultaneous survey of the number of each bird species in the same area and along the same survey route is conducted every time.
2. The survey is conducted in similar environmental conditions each time, e.g. monthly surveys are conducted at rising tide.
3. The counting area includes mudflats and mangroves, fishponds, *gei wais*, drainage channels and streams.
4. The counting targets include all waterbirds and wetland-dependent species, the latter include kingfishers, raptors, Collared Crows and Red-billed Starlings.

當雀鳥處於靜止狀態、沒有人為或猛禽干擾、停於細小而狹窄的位置，或分散在開闊的空間，這時便可以逐隻點算。

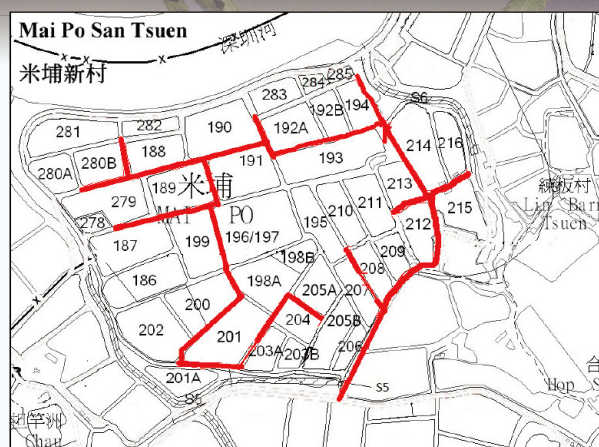
Bird-by-bird counts are made when there is limited movement of birds, when there is little or no disturbance by people or raptors, when the birds are located in a small and confined area, or when the birds are scattered in an open area.

群集雀鳥數量  
No. of birds in flock  
=  $3 \times 10 + 2 = 32$   
估算數量  
Estimated no. **32**  
實際數量  
Actual no. **33**

當雀鳥群集，視乎鳥群的數量和調查員的經驗，可以較小（即2、4、6...）或較大群（即每10、20、50或100隻）倍數進行點算。Flocks of birds are easier to count by twos (i.e. 2, 4, 6, 8, 10, etc.) or usually in larger groups (i.e. 10, 20, 50, 100, etc.), depending on the overall flock size and experience of the surveyor.

部份鳥種在黃昏或黎明時於晚棲地點算會較準確，例如鸕鶿。Certain species, such as Great Cormorant are counted more accurately in the evening or at dawn at roosting sites.

普查路線舉例  
Example of survey route



為確保結果的可比較性，調查員每月會在相同路線進行同步普查，而所有魚塘、基圍和河溪等均有獨立編號，以便按編號記錄雀鳥資料。此外，調查員會定期記錄魚塘和基圍的降水情況，並會每隔半年記錄一次魚塘的管理及植被狀況。

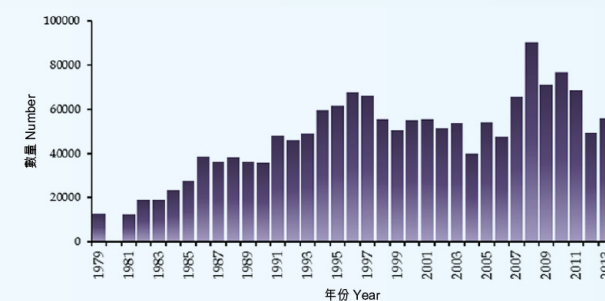
In order to obtain comparable results, surveyors follow the same survey route during the monthly synchronised count. Each fishpond, *gei wai*, stream, etc. is an independent count location with an assigned number. Surveyors record the birds at each point location. The conditions of the drained fishponds or *gei wais* are recorded regularly, and condition of pond management and vegetation of each fishpond are recorded twice a year.

## 水鳥普查的結果選輯 Highlights of the Waterbird Monitoring

過去三十年，后海灣越冬水鳥的數量整體錄得增長，由1970至1980年代的二萬隻至四萬隻，上升至1990至2010年代的超過五萬隻，顯示了后海灣濕地對水鳥的重要性。此外，隨著參與水鳥普查的調查員增加，有關數據亦更趨準確。

There has been an overall increase in the number of wintering waterbirds in the past 30 years, from 20,000 to 40,000 in the 1970 to 1980s' to over 50,000 in the 1990 to 2000s', indicating that the Deep Bay area is an important site for waterbirds. Besides, the accuracy of the waterbird monitoring programme has also improved with more people participating in the waterbird surveys.

1979-2013年1月份水鳥數量  
Number of waterbirds in January 1979-2013



過去廿年，在百多種越冬水鳥當中有13種呈上升趨勢，有11種卻呈下降趨勢。有趣的是，數量下降的水鳥多為常見鳥種，而數量上升的多為較稀有的水鳥。後頁介紹一些本普查在過去十年或廿年數量有顯著變化的越冬水鳥。

Among the over 100 species of wintering waterbirds recorded in Hong Kong in the past 20 years, 13 species have shown an increasing trend in abundance, while 11 species have shown a declining trend. It is interesting that most of the declining species are those commonly observed, whereas many of the increasing species are rare species. Examples of wintering waterbird species obtained in this monitoring programme with a significant change in number in the past 10 or 20 years are shown in the next page.



如果你擁有以下各項，歡迎參與水鳥普查：

- 良好的野鳥辨識能力；
- 了解水鳥遷徙以及生境使用的情況；
- 願意於戶外進行點算工作。

You are welcome to join the waterbird count if you have:

- good identification skills on wild birds;
- knowledge of the migratory patterns and habitat preferences of waterbirds; and
- a willingness to join outdoor field surveys.

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米埔內后海灣  
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水鳥普查計劃

Waterbird  
Monitoring Programme

at Mai Po Inner Deep Bay  
Ramsar Site



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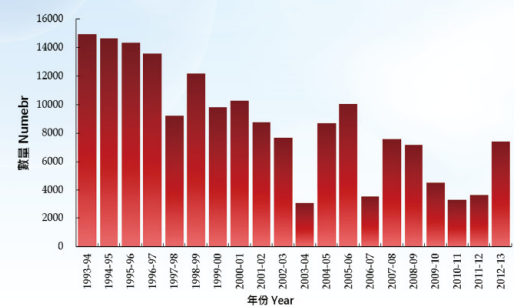


香港觀鳥會  
Hong Kong  
Bird Watching Society



## 紅嘴鷗 Black-headed Gull

*Chroicocephalus ridibundus*



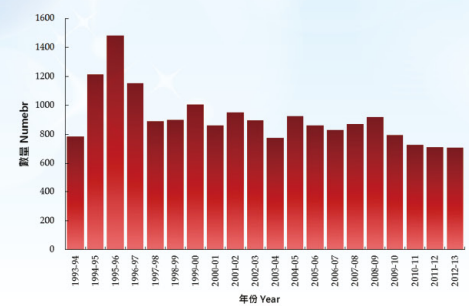
分布	繁殖於北美東北部、歐亞大陸北部 (北極區除外)。部分北美及歐洲的種群為該處留鳥，其餘於歐洲及亞洲南部、以及非洲北部沿海越冬。
棲息生境	於內後海灣潮間帶和魚塘區棲息及覓食。
居留狀況	冬候鳥
數量	全球總數約有480萬至890萬隻，東亞澳大利西亞遷飛區內有超過10萬隻。
種群趨勢	過去廿年的數量下降6.4%

Distribution	They breed in northeast North America and much of northern Europe and Asia, excluding the Arctic region. Some populations in North America and Europe are resident, with the remaining population wintering on the southern coasts of Asia and Europe and northern coast of Africa.
Living Environment	Most of them stay and feed in the intertidal areas and fishponds in the Inner Deep Bay area.
Status	Winter visitor
Population Size	There are 4.8-8.9 million individuals worldwide, with over 0.1 million in the East Asian-Australasian Flyway (EAAF).
Population Trend	A decline of 6.4% in the past 20 years



## 蒼鷺 Grey Heron

*Ardea cinerea*



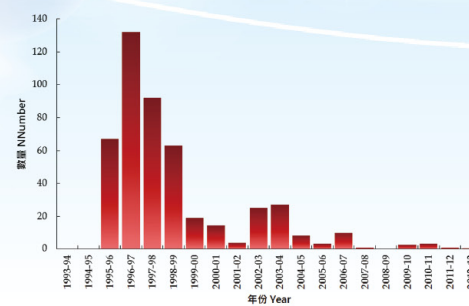
分布	廣泛分布於非洲及歐亞地區，部分種群為留鳥，部分為遷徙鳥。
棲息生境	多於內後海灣地區的沼澤、魚塘及水道覓食。
居留狀況	冬候鳥
數量	全球總數約有79萬至370萬隻，東亞澳大利西亞遷飛區內約有1萬至10萬隻。
種群趨勢	過去十年的數量下降2.5%

Distribution	They are widespread in Africa and Eurasia. Some of the populations are residents and some are migrants.
Living Environment	Most of them stay and feed in marshes, fishponds and water channels in the Inner Deep Bay area.
Status	Winter visitor
Population Size	There are 0.79 - 3.7 million individuals worldwide, with 0.01-0.1 million in the EAAF.
Population Trend	A decline of 2.5% in the past 10 years



## 中華斑嘴鴨 Chinese Spotbill

*Anas zonorhyncha*



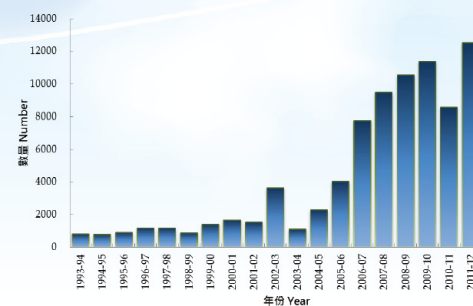
分布	繁殖於東亞地區包括俄羅斯東南部、中國的華中、華北及台灣地區、以及日本，越冬於華南及中南半島北部。
棲息生境	主要於內後海灣的沼澤及魚塘覓食及棲息。
居留狀況	冬候鳥
數量	全球總數約有80萬至160萬隻，全部棲息於東亞澳大利西亞遷飛區內。
種群趨勢	過去十年數量下降36%

Distribution	They breed in east Asia, including southeast Russia, central and northern part of the Mainland and Taiwan in China, and Japan. They winter in southern China and northern Indochina.
Living Environment	Most of them inhabit and feed in the marshes and fishponds in the Inner Deep Bay area.
Status	Winter visitor
Population Size	There are 0.8 - 1.6 million individuals worldwide, all of them were recorded in the EAAF.
Population Trend	A decline of 36% in the past 10 years



## 反嘴鷺 Pied Avocet

*Recurvirostra avocetta*



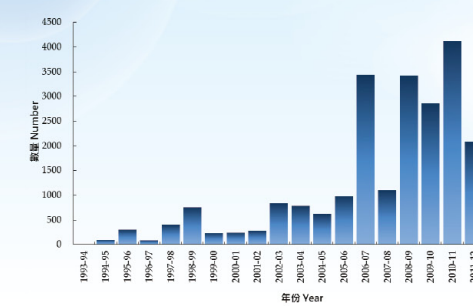
分布	廣泛分布於非洲及歐亞地區，部分種群為留鳥，部分為遷徙鳥。
棲息生境	主要於內後海灣泥灘上覓食。
居留狀況	冬候鳥
數量	全球總數約有21萬至46萬隻，東亞澳大利西亞遷飛區內約有10萬隻。
種群趨勢	過去廿年數量上升16.8%

Distribution	They are widespread in Africa and Eurasia. Some of the populations are residents and some are migrants.
Living Environment	They feed mainly in the Inner Deep Bay mudflats.
Status	Winter visitor
Population Size	There are 0.21 - 0.46 million individuals worldwide, with about 0.1 million in the EAAF.
Population Trend	An increase of 16.8% in the past 20 years



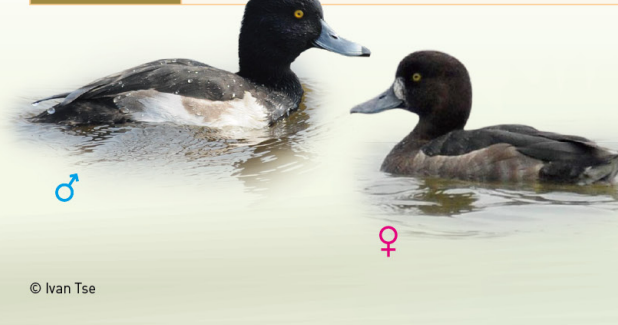
## 鳳頭潛鴨 Tufted Duck

*Aythya fuligula*



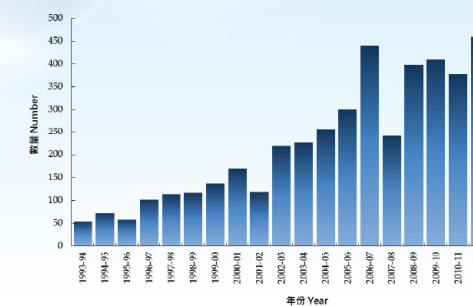
分布	繁殖地廣泛分布於歐亞大陸北部，包括由冰島至俄羅斯東部堪察加半島至中國北部等地區。部分種群於東亞地區如日本、韓國及中國南部等地越冬。
棲息生境	於內後海灣的沼澤、泥灘及魚塘覓食。
居留狀況	冬候鳥
數量	全球總數約有260萬至290萬隻，東亞澳大利西亞遷飛區內約有20萬至30隻。
種群趨勢	過去十年數量上升15.3%

Distribution	The breeding sites are widely spread over northern Eurasia, ranging from Iceland to Kamchatka in eastern Russia, and northeastern China. Some populations winter in east Asia, including Japan, South Korea and South China.
Living Environment	They inhabit the marshes, mudflats and fishpond areas of Inner Deep Bay.
Status	Winter visitor
Population Size	There are 2.6 - 2.9 million individuals worldwide, with about 0.2-0.3 million in the EAAF.
Population Trend	An increase of 15.3% in the past 10 years



## 黑臉琵鷺 Black-faced Spoonbill

*Platalea minor*



分布	繁殖於朝鮮半島西部、中國遼寧省東部沿海地區、以及俄羅斯符拉迪沃斯托克(海參崴)以東的海岸地區。最大的越冬地有台南曾文溪口、香港後海灣及中國大陸南部，其他越冬地點有韓國、日本、越南及部份沿岸東南亞地區。
棲息生境	於內後海灣的泥灘及魚塘中覓食，於米埔自然護理區晚棲。
居留狀況	冬候鳥
數量	已知總數約有2,700隻，棲息於東亞地區。
種群趨勢	過去十年的數量上升5.2%

Distribution	They breed on islets off the west coast of the Korean Peninsula, in the eastern coast of Liaoning Province in China, and in the east coast of Vladivostok in Russia. The three major wintering sites are the Tsengwen estuary in Tainan, the Deep Bay area of Hong Kong and southern coastal China. Other wintering sites included South Korea, Japan, Vietnam and some other areas in southeast Asia.
Living Environment	They feed mainly in the mudflat and fishpond areas of Inner Deep Bay, and roost in the Mai Po Marshes Nature Reserve.
Status	Winter visitor
Population Size	Approximately 2,700 known individuals have been recorded in the East Asian region.
Population Trend	An increase of 5.2% in the past 10 years

