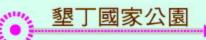


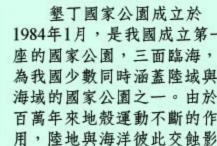
綠色生活地圖是將屬於自然、人文、生 及環保等與綠色生活相關的景點,標示在 地圖上。結合墾丁國家公園既有的豐富生態資源繪製成海角鷹資綠色生活地圖。這份地圖的出版,是希望透過「知、情、意」教育 資訊的建構,引導墾丁國家公園的遊客,發現墾丁國家公園環境與過境猛禽之美。此外 與全球同步,每張綠活圖都使用全球通用 的系統,運用相同的圖例(icons)來描述周遭 的生態與文化資源,並且為了提供大眾更便 捷及完整的資訊,在本次繪製過程中,加入 新的資訊科技技術-QR CODE,讓地圖不單只 相功能,讀取QR CODE後,自動連線至長榮 大學的網路系統平台,進行影音導覽服務。本次海角鷹資綠色生活地圖,在林青處 長的領導下,透過多單位多層次的團體社群 製成具有永續、在地化、國際化、全球創新的綠色生活地圖,相信可帶給猛禽的愛好者 、遊客與關心墾丁國家公園的朋友一種耳目

Green map is no ordinary street map, featuring sites regarding nature, culture, ecology and environmental and migratory raptors in the Park. In addition, catching on the QR CODE with a mobile phone camera, one is automatically connected to the Internet system platform of Chang Jung Christian University for audio-video guide

The Hawk-infor Green Map is produced under the guidance of Director Lin Ching, and we are sure that with the cooperation of multiple organizations and societies as well as the integration of the theme of sustainable development at Chang Jung Christian University, the production will be a green map of sustainability, locality, internationalization and global innovation, which makes all raptor enthusiasts, tourists and those that care about the Park fresh.





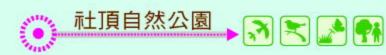


热帶氣候的催化,孕育出豐富多變的生態樣貌 ,海岸林帶的植物群落尤其特殊罕見,每年還 來臺灣便是東亞地區鳥類遷移的重要中繼站之 一,而墾丁國家公園位於臺灣最南端,是秋季 數以百萬的遷移性鳥類南遷時必經的最後渡津 賞鷹季」活動,已經成為國人至墾丁國家公園 從事戶外休閒活動的一大主題

#### Kenting National Park

Established in January 1984, Kenting National Park is the first national park in Taiwan, facing the ocean on three sides also makes it one of the few national parks in Taiwan to cover both land and sea. Due to the constant crustal movement over millions of years, with ocean eroding the coastal landscape, resulted in unique geological landscapes in this area including uplifted coral reef, sea erosion landform and slumping cliff. The special land-sea location coupled with catalysis of the tropical climate brought forth multi-variant ecologies, with coastal forest botany among the most unique and rare, as well as large flocks of migratory birds coming over for winter from up north, spectacular in number, forming a splendid image for the Park. Taiwan has long been the main stopover in terms of bird migration in East Asia, and situated at the southern tip of Taiwan, the Park is the last transit millions of bird will come across during their migration to the south in autumn. Therefore, every autumn, the Park organizes the Kenting Raptor-Watch Season has become a popular outdoor activity people come to the Park for.

GREEN MAP





社頂自然公園位於墾丁國 家森林遊樂區旁,面積128.7公 頃,長在礁石上的樹木受到東 北季風的吹襲,雕塑出自然盆 景狀的藝術傑作。園內並有豐 富的動植物、石灰岩洞、數處 視野良好綠草如茵的草生地,

及珊瑚礁岩裂縫造成的一線天景觀。築於高位珊 瑚礁上的凌霄亭是最廣為人知的觀察點,由於展 望佳、視野好,所以成為臺灣觀察猛禽過境的最 佳地點,秋季時可觀察到多種不同的遷移方式:

- 一、清晨由佳樂水方向起鷹的鷹群,由東方海面高空魚貫 通過,形成蜿蜒的鷹河。
- 二、由西方抵達者,取道南方鼓翼北飛,通過頭頂,尋找 山谷間的熱氣流、盤旋提昇高度後,再集結,乘風滑
- 三、因南方海面天候不佳,已出發鷹群再度折返,此時飛 回來的高度較低,有另一種律動的美感。

#### Sheding Nature Park



Next to the Kenting Forest Recreation Area, Sheding Nature Park covers 128.7 hectares with trees grown on reefs constantly olown by the northeast monsoon, sculpting magnificent works of art in the form of natural botany. The Park has bountiful fauna and flora, limestone caves, spectacular view in

several sites, lush green grass, and the thread of sky landscape formed by the fissure on coral reef rocks. Ling-hsiao Pavilion is the most amous sighting point with the best view in the park, thus becoming the best location for observing raptor migration in Taiwan; during the autumn, many different migratory methods are observed.

I. Hawk flocks set off from Jialeshui at the crack of dawn, soar above the ocean on the east in a file, forming a winding river of hawk. II. Later on in the day, when the air current on land is stronger, hawk flocks pass out into the sea from high above us, sometimes in extreme height and speed, with hundreds of raptors stealing past in a blink of an eye. III. Those arriving from the west will fly north via the south, pass above us,

seek hot air currents in the valley, soar to an elevated height before gathering

again, and ride out south to the sea with the wind as power.





滿州境內里德、響林一帶 山區,地勢足以避風,提供了 過境遷徙猛禽絕佳的夜棲點 尤其是灰面鵟鷹,年復一年地 來到滿州鄉,作為渡海前的最 後補給點。過境期間,每天正

便會自四方,向滿州聚集準備停棲過夜。入夜後 , 牠們會停棲在山區樹上等待清晨啟程,繼續南 遷。觀察落鷹的最佳地點是里德橋及山頂橋附近 ,在這裡可欣賞群鷹起落,時而盤旋鳴叫、時而 俯衝停棲。有別於社頂的早晨,滿州的黃昏有一 種寧靜悠閒的田園美。但是,提醒大家切勿進入 猛禽夜棲的山區,以免造成干擾,影響他們渡海 前的最後休息。

#### Manjou Township

Mountains along Lide and Sianglin in Manjou act as wind-shields, providing the perfect resting point for migratory raptors at night, especially Grey-faced Buzzard that comes back every year to Manjou Township, as the last supply stop before crossing the ocean. During the transit, hawk flocks arriving at Hengchun Penisula will gather towards Manjou from all corners around noon every day, preparing to soar out to the ocean on the next day. Once dark, they perch on trees in the mountains awaiting departure at the crack of dawn and continue their journey south. The best spot to observe landing hawks is around Lide Bridge/Shan-ding Bridge, where one can see the landing and takeoff of hawk flocks, sometimes hovering and crying, sometimes divi ng and perching. Different to mornings at Sheding, sunsets at

Manjou has a peaceful and serene kind of pastoral beauty. However, we must remind you all not to enter mountains with raptors perching for the night so as not to cause disruption, and interrupt their last rest before crossing the ocean.



猛禽顧名思義代表著兇猛且獵食其他動物為 生的鳥類,猛禽具備尖銳而有力的腳爪用來掠取 、獵殺生物,同時擁有彎曲帶鉤的嘴喙來撕裂肉 塊的鳥類。符合這種定義的鳥類,包括了隼形目 的老鷹及鴞形目的貓頭鷹。英文稱猛禽為raptor 乃源自拉丁文的rapere,原意為抓取並奪去,精確 地描述了猛禽的生態與行為。一般俗稱的老鷹是 指鷹、鵰、鷲、鵟、鷂、隼等,在分類學上屬於 隼形目,他們需要倚靠絕佳的視力獵捕食物,乃 是白晝活動的日行性猛禽

# ? 猛禽為什麼要遷移

猛禽的生活與棲息環境密不可分,受到氣候 的影響甚大。進入秋季後,高緯度地區的氣候逐 漸寒冷,食物來源也開始日漸匱乏,猛禽就開始 向低緯度地區遷移到一個食物充足、適合暫時落 脚的地方度過冬天,等來年春天再返回高緯度地 區,進行傳宗接代的使命。

#### What is a raptor

A literal translation of raptor is a fierce carnivorous bird that preys on other animals, with sharp strong claws to snatch and prey, as well as curvy hooked beak to tear up meat. Birds fitting these definitions include FALCONIFORMES hawk and STRIGIFORMES owl. Raptor originates from Latin rapere, meaning to take by force, which depicts with precision the biology and behavior of raptors. What we commonly call hawk actually includes hawk, eagle, vulture, buzzard, harrier and falcon, belonging to the order FALCONIFORMES in taxonomy, they rely on keen eyesight to prey, and are diurnal raptors that is active in

#### Why do raptors migrate

The livelihood and habitat of raptors are closely related, and greatly influenced by the climate. Entering autumn, the climate turns cold in high latitude areas, food source becomes scarce, and raptors begin migration to low latitude areas in seek of a place with ample food and suitable for temporary residence to ride over the winter before returning to high latitude areas next spring, to fulfill the mission of producing offspring.

# ? 經過臺灣的猛禽遷徙路徑 Raptor's migratory path



# 😢 觀察猛禽要領

- 掌握適當的天氣資訊 參考中央氣象局資料,選擇不下雨的日子。
- 選擇良好觀察地點
- 展望良好、無視野遮蔽,並請注意防曬!
- · 把握猛禽過境時段
- 黎明到中午時間是過境猛禽活動的高峰時段;
- 滿州落鷹,以下午兩點至日落前最適合觀察。 • 利用良好的輔助器材
- 望遠鏡及太陽眼鏡是不可或缺的利器,輔助 看清空中的猛禽;其次是保護眼睛。

#### Tips for observing raptors

- Acquire adequate weather information: check Central Weather Bureau, choose rainless days.
- · Choose good observation sites: good view without blockage; in other words, use sun block!
- Make use of the raptors transit period: before dawn to noon is the rush hour of raptor transit; the best time to watch hawks
- landing in Manjou is from 2 p.m. to sunset. Utilize good supporting equipment: binoculars and sunglasses are essential, the former to see raptors clearly in the sky, the latter to protect your eyes.

# 鷹季快訊 Raptor Messages





綠色生活地圖圖示 Green Map Icons

# Culture & Society



環境教育 **Environmental Education** 



生態資訊 Eco Information



需事先預約 Appointment Needed

#### 自然 Nature



過境猛禽與遷徙路徑 Migration Zone



Bird Watching



Park

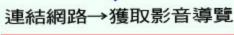


重要棲息地 Significant Habitat

# QR CODE 影音導覽介紹



利用具辨臘QR Code功能之行動設備









墾丁國家公園管理處

長榮大學

執行單位:長榮大學環境資訊研究中心 專案監製: 賴信志、潘貞杰

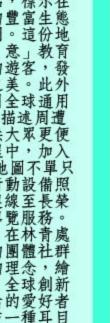
專案策劃:林順凱 繪圖設計:莊云瑄、莊惠瑜、林琡敏

發行日期:初版2010年10月

英文翻譯: 柯乃瑜 影音提供:蔡振忠



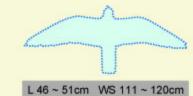
綠活圖圖示為綠活圖系統公司 2009年版權所有Green map 為登記註冊商標經許可後方可使用



protection that are related to green life. Combined with existing rich ecological resources at the Park, a raptor-watch green map is thus produced. The production of this map is proceeded with the hope of constructing educative materials based on "cognition, affection and idea", guiding tourists of the Park on a discovery tour of the beauty of the environment the global trend, each green map uses a system common around the world, with the same icons to describe surrounding ecological and cultural resources; also, to provide more convenient and complete information to the general public, we have included a new technology – QR CODE – during the latest production, making the map more than a combination of words and images, when by scanning

services.







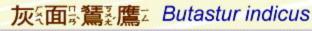


俯衝極速可達320km/h

L 47 ~ 51cm WS 102.5 ~ 115cm

#### Peregrine Falcon

A medium-sized bulky raptor. Adult birds have dark grey back and white underparts. Male adult birds have sparse black mottling on the chest and short stripes on the underside. Female adult birds have thin streaks across the chest and longer stripes on the underside. Young birds have black-brown back and light brown underparts with dark streaks. Tends to dive at high speed from the sky to kill prey, with a speed up to 320km/h.





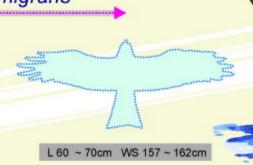


### Grey-faced Buzzard

A medium-sized raptor with long and pointy wings. Adult birds have orange eyes, grey crown and neck, red-brown back and dark brown stripes across the underside. Young birds have dark yellow or light brown eyes, dark brown back and dark brown streaks on the light brown underside. Migrates during spring and autumn.







大型猛禽、習稱老鷹、翼長、飛行時初級飛羽指叉突出六根、翼下初級飛羽有白色斑塊且尾 巴呈魚尾型。常出現於海港、水庫、湖泊及河流等水域附近,黄昏時有群聚行為。

#### Black Kite

Black Kite is the raptor we generally refer to. A large-sized raptor with long wings; during flight, 6 wing fingers can be seen on the primaries, pale patches on underwing primaries, and tail forked. Often seen around water bodies of harbours, reservoirs, lakes and rivers; tends to flock towards the evening.





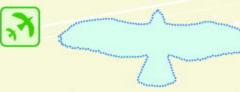
線延伸至頸後。成鳥頭頂全白,虹膜黃色,背面暗 褐色。給人的第一印象就是『雙翼狹長』

(M型滑翔) M shape gliding

L 56 ~ 62cm WS 147 ~ 170cm

#### Osprey A large-sized raptor with extremely long narrow wings, and when gliding with arched wings, wings form an obvious M shape. During flight underwing carpal patch can be seen, a distinct white triangular shape is formed by coverts and underparts, black eye patch extending all the way to the back of the neck. Adult birds have white crown, yellow eyes, and dark brown back. First impression on people is "long narrow wings".

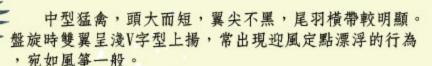






L 48 ~ 58cm WS 113 ~ 137cm

L 57 ~ 60 cm WS 121 ~ 135cm



#### Common Buzzard

A medium-sized raptor, head large but short, pointy wings that are light-shaded with an obvious bar on the tail. When hovering, both wings spread as a shallow V, often seen floating windward in mid-air like a kite.

澤ൂ蒼 Circus spilonotus



、胸部淡棕色、有不明顯褐色縱紋。幼鳥及 亞成鳥大體為褐色,頭及背覆羽雜有淡奶油色,腹面飛 羽及尾羽暗褐色,無横帶。滑翔時雙翼成淺V字型上揚

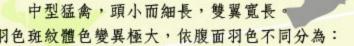
#### Eastern Marsh Harrier

A medium-sized raptor. Male and female birds have different colours. Male adults have black and white body with variable plumage, black beak and yellow feet. Male crown is black all the way to the back, as well as wing tips; chest, underparts and undertail coverts are white; some have grey-brown streaks across the chest, and black outer primaries can be seen during flight. Females have brown back, coverts mixed with light plumage, light brown on head, neck and chest with less than obvious brown streaks. Young and sub-adult birds are mainly brown, light butter shade mixed on the head and back coverts, and underpart flight feathers and tail feathers are dark brown without bars. While gliding, wings are held in a shallow V.









### Oriental Honey Buzzard

A medium-sized raptor with small but slender head and wide long wings. Great variation in plumages, and can be categorized into three types according to different underside plumages:

- 1. Light light brown or dusty white underside and underwing coverts
- 2. Middle part -brown underside and underwing coverts with dense mottling
- Dark dark brown underside and underwing.



鳳云頭菜蒼江鷹 Accipiter trivirgatus

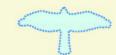
小型猛禽。成鳥頭部鉛灰色,虹膜黄色,後枕有冠,背

#### Asian Crested Goshawk

A small-sized raptor. Adult birds have lead-grey crown, yellow eyes, crest on the back of the head, brown back, white underside and bushy white undertail coverts towards the end of the tail; young birds have yellow-brown eyes which are darker than those of adult birds, with brown streaks. Features a press-down-and-shake display during flight.







L 28.5 ~ 31.5cm WS 51.5 ~ 62.5cm

小型猛禽,成鳥腹面羽色胸腹均為細橫紋;幼鳥 移,通常單獨行動,不與其牠猛禽混群。

#### Japanese Sparrowhawk

A small-sized raptor. Adult birds have thin stripes on chest and underside; young birds have streaked chest, heart-shaped mottling on the underside and stripes on the two sides of the underparts. Male birds have red eyes and yellow orbital ring; female birds have yellow eyes. Often migrates at the same time as Chinese Goshawk, but travel alone and do not flock together.

L 70cm WS 140 ~ 160cm

# 大學冠纂整整 Spilornis cheela



大型猛禽,頭大、雙翼寬長。盤旋時雙翼成淺V字型 後者羽色呈暗褐色,較接近成鳥

#### Serpent Eagle

A large-sized raptor with large head and wide long wings. While soaring, wings are held in a shallow V. Short tail with an obvious crest on the back of the head. Adult birds have dark brown plumage with dense white mottling on the underside. Towards the tip of flight feathers and tail feathers is a wide white bar. There are two types of young birds, light and dark coloured, the former has a brown back and light brown underside, the latter has a dark brown plumage, closer to that of the adult bird.

# 腹緊鷹ℤ Accipiter soloensis



L 20 ~ 30cm WS 60 ~ 70cm



鳥虹膜淡黄色。幼鳥則以胸腹部的斑點為主要辨識要 點。每年春秋遷徙時,常成百隻以上過境臺灣

#### Chinese Goshwak

Local name: Dove Hawk (Gezihying), Little One (Siaohaozai)

A small-sized raptor with short and pointy wings. Male adult birds have dark brown eyes and female with light yellow eyes. Young birds are mainly distinguished by chest and underside mottling. Easily flock to over a hundred during migration every spring and autumn.

# 紅系隼等 Falco tinnunculus



L 33 ~ 38cm WS 68.5~76cm



小型猛禽,體型纖細,尾長。眼圈黃色,虹膜呈暗

#### Common Kestrel

A small-sized raptor. Slender body with long tails. Yellow orbital ring and dark brown eyes. Male adult birds have grey crown, red-brown coverts and back, and light brown streaks on the underside. Delicately controls both wings and the tail to hover in mid-air scouring prey on the land, once spotted, immediately dives and catches the prey.





