

ISSUE 6

THE OSPREY

ARMED FORCES BIRD WATCHING & ORNITHOLOGICAL JOURNAL 2006



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Bird Gallery



Bohemian Waxwings *Bombycilla garrulus*, Vrådal Telemark, Norway, Apr 05. © Dave Greasley.



Montagu's Harrier *Circus pygargus*, juvenile, Akrotiri, Cyprus, Sep 05. © Jason Wilson.



Red-footed Falcon (Female) *Falco vespertinus*, Akrotiri, Cyprus, Sep 05. © Jason Wilson.

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CONTENTS - ISSUE 6

4	Editorial
5	Notes on the local abundance and habitat of, and threats facing, the Wattled Ibis <i>Bostrychia carunculata</i> in Ethiopia By John Hughes
9	Winter Duck IV By FS John N Wells and Martin K Wightman
17	MOD Bird Count By Lt Col Roger Dickey
18	Troubled Times for the Eurasian Griffon Vulture <i>Gypus fulvus</i> in Cyprus By LCpl Jason Wilson - WSBA Conservation Officer
19	The 2005 Demoiselle Crane <i>Anthropoides virgo</i> Survey at Akrotiri Salt Lake Cyprus By LCpl Jason Wilson - WSBA Conservation Officer
22	Re-trapping Adult Sooty Terns <i>Sterna fuscata</i> on Ascension Island By John Wells and Colin Wearn
23	Colour pictures and Bird Gallery
31	The 2005 survey of Eleonora's Falcon breeding sites in Cyprus By LCpl Jason Wilson - WSBA Conservation Officer
33	Results of a House Martin <i>Delichon urbica</i> survey Troodos Station and Mount Olympus Retained Sites, Cyprus, on 25 May and 27 June 2005 By LCpl Jason Wilson - WSBA Conservation Officer
35	Gulls in Gibraltar By Mike Blair
39	Today's Music in the Margraves Land By Mike Blair
42	Exercise Brahminy Kite By Tim Hallchurch and Hilary Nash
48	List of Contacts
50	Future Events



From the top: **Wattled Ibis** *Bostrychia carunculata*, Bale MNP January 2005. © Lieuwe Dijkse. Probable dark-morph (very dark secondaries, broad, arrowed breast streaking) juvenile (?) (fledged the year before) **Eleonora's Falcon** *Falco eleonora*. © Jason Wilson, September 2005. **Sooty Tern** *Sterna fuscata* and chicks on Ascension Island, Oct 05. © Richard Seargent. **Yellow-legged Gull** *Larus michahellis*, Gibraltar Mar 2005. © Mike Blair.

Cover photograph

Eurasian Bittern *Botaurus stellaris*, Lee Valley Jan 04. © Richard Duckett.

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Managing Director: Ron Pearson
Sub-editor: Kerry Wells
Advertising Manager: Amanda Ringer

Editorial

This year we have another marvellous spread of fascinating articles and brilliant photographs. The bird gallery photos are quite superb but I would ask that any of you who do take your own photos do please send them in, we want more sources. The articles give an amazing insight into just how diverse is our travel and work in pursuit of birds, some purely for the pleasure of watching others for scientific research.

The Wattled Ibis article is full of interesting detail and has been followed by an AOS group tour in early 2006 (report in the next journal). Ethiopia is a most attractive country with very charming people and is thoroughly recommended for a bird watching visit. The Winter Duck article is a first rate piece and a marrow-cold tale on just the sort of work and endeavour we should be majoring on. Likewise the continuing research from Ascension, although some of those Terns must be fed up with our men by now, but perhaps we could get them to pay their subscriptions! The article on the trip to Malaysia is another excellent report of a more direct pursuit of plain old fashioned bird watching. The enjoyment is greatly magnified by the good company and 'crack'; thoroughly recommended to beginners of all ages as a fun way to enjoy birds. In a similar vein is Mike

Blair's trip to the Margrave's Land and it seems to me that birding in the old Warsaw Pact is better than further West and perhaps the dead hand of soviet officialdom was not all bad. Mike's article on 'Gib' is also in the category of a more scientific report, old ground for many of us I should think? Like Winter Duck and Ascension our core business, very good reading with lots of detail. Mike has decided to stand down as RAFOS Editor and will handover to Nick Smith but more about that in the next journal.

My last comments are on the outstanding contributions from Jason Wilson. Most of us have either served or visited Cyprus and his articles therefore have an immediate resonance. It is great to be kept up to date on old haunts in such a succinct and informed manner. Sadly we now have a major gap as the Army has stopped his manning-cover at short notice and HQBF although content with the kudos of having a Conservation Officer will do nothing to fix it. Jason has had to return to his battalion in the UK and although there is a plot to get him back it is not looking good. We hope he might get a permanently established civil service appointment but this action is stalled at PJHQ. A casualty of the way our Services now work with little fat and little give in the wider interest.

Simon Strickland

Bird Gallery



Red-footed Falcon (Male) *Falco vespertinus*, Akrotiri, Cyprus, Sep 05.
© Jason Wilson.



African Swamphen *Porphyrio madagascariensis*, Rondevlei Nature Reserve, Cape Town, South Africa. © Dave Greasley.



Notes on the local abundance and habitat of, and threats facing, the Wattled Ibis *Bostrychia carunculata* in Ethiopia

John Hughes

Summary

We carried out a survey of **Wattled Ibis** *Bostrychia carunculata* along the border of the Bale Mountains National Park in the Ethiopian Highlands during January 2005. The survey area close to the town of Robe appears to be a stronghold for the **Wattled Ibis**, whose distribution in the Ethiopian Highlands appears patchy. Little has been written about the birds of Ethiopia and no reliable population estimates for **Wattled Ibis** exist. This paper represents the findings of a systematic survey of one part of the **Wattled Ibis** population. We first saw the species in Addis Abba. We recorded all **Wattled Ibis** seen while we were en-route between Addis Abba and the Bale Mountains 400km to the south. In the 600km² study area, we recorded sightings of flocks during point counts and line transects. I logged 100 hours of observations in the study area, achieving 698 separate sightings of wintering ibises. The total area surveyed was 27km², representing 4.5% of the study area. The minimum count of **Wattled Ibis** in the survey area was 246 birds. **Wattled Ibis** occurred at a density of 10 birds/km² in the study area. Five hotspot sites, each containing from 22-93 **Wattled Ibis**, were located. The habitats that **Wattled Ibis** preferred were related to an existing Ethiopian habitat classification list. In the study area **Wattled Ibis** roost in trees and avoid cereal farm land. We investigated new and potential threats to the species. The previous principal threats of over-grazing and woodland clearance still exist. Potential new threats are soil erosion, conversion to agriculture (Farmers from the north of the country have been relocated to this area) and extraction of ground-water (Small-scale extraction and irrigation have started and plans to expand these processes exist).

Introduction

This study details the first baseline survey of **Wattled Ibis** *Bostrychia carunculata* on the border of and just inside the Bale Mountains National Park situated in the Ethiopian Highlands some 400km south by road from Addis Abba. The bird is endemic to Ethiopia (Brown *et al* 1982). Despite the fact that the country has 23 endemic bird species, there have been very few studies of birds in the country, even in comparison to other countries on the continent. No accurate estimate of the total population of **Wattled Ibis** exists. The survey was unplanned and was conceived only half-way through the visit when I realised that my field note book contained more population data than I could find through a literature search. BirdLife International (BLI) estimate the population to be 10,000-25,000 individuals. The species is assessed of being of Least Concern (LC) of the IUCN Red List categories (BLI 2005a).

The Field Guides of Williams & Arlott (1993) and Sinclair & Ryan (2003) described the species as common and widespread in the Highlands of Ethiopia. The **Wattled Ibis** is easily identifiable - being large and noisy and preferring open spaces, it is easy to see. Van Perlo (1995) and Hancock *et al* (1992) described all seven ibis species that inhabit East Africa. The **Spot-breasted Ibis** *B. rara* and the **Olive Ibis** *B. olivacea* have not been recorded in Ethiopia. The status of the **Northern Bald Ibis** (Waldrapp) *Geronticus eremita*, which breeds in Syria (Serra *et al* 2003) in tiny numbers and in Turkey in a conservation support project and once wintered in Ethiopia, is uncertain. The **Glossy Ibis** *Plegadis falcinellus* has an almost worldwide if scattered distribution and is nomadic, but birds in Ethiopia are largely migrants from the north heading for more southerly African wintering grounds (del Hoyo *et al* 1992) - being a long-legged swamp ibis, it is not easily confused with the **Wattled Ibis**. The very different **Sacred Ibis** *Threskiornis aethiopicus*, the commonest ibis in Ethiopia, was frequently seen feeding with **Wattled Ibis** (pers obs). In Ethiopia the **Wattled Ibis** is likely to be

mistaken only for the **Hadada Ibis** *B. hagedash*, which is uncommon, none being recorded in the study area.

In any case, **Wattled Ibis** has a distinctive profile and diagnostic white patch on the wings. It feeds on open ground making it easy to identify (photo in central section) from a vehicle. The male and female are similar and could not be distinguished in the field. Most birds seen had wattles (not all possess them) that were about 5cm long and 0.5cm in diameter. The end of the wattle was thicker than the cord. In a flock, small ibises seen with flesh-coloured legs and lacking a wattle were assumed to be juveniles. The **Wattled Ibis** utters a loud honk that carries a long distance. Characteristically, when birds take to the air they honk repetitively for 4 or 5 seconds as they fly low (about 50m) above ground.

Aim of the study

The aim of this single species study is to make a contribution toward a more precise estimate of numbers and distribution of **Wattled Ibis**. This paper reports on sightings that were recorded during a visit to Ethiopia 13 Jan to 2 Feb 2005. Observations took two forms, casual records from the 400km road journeys between Addis Abba and the Bale Mountains National Park and a formal, 14-day detailed population survey in and around the Park itself (**Fig 1**). For the purpose of future monitoring, the survey was designed to be repeatable, either as a whole or in part, thus facilitating comparison of numbers between years and sites.

Study Area

This survey is representative only of six 10x10km squares at the northeast corner of the Bale Mountains National Park. These mountains lie to the east of the northeastern branch of the African Rift Valley that divides Ethiopia, their height ranging from 3000 to 4250m asl. Conservation International has identified the Bale Mountains as a Biodiversity Hotspot and the Bale Mountains National Park has been designated an Important Bird Area (IBA ET054) in Ethiopia (Fishpool & Evans 2001). In addition to the **Wattled Ibis**, we had numerous sightings of seven different endemic species (see **Appendix 1**) during the two-week study period and good views of two **Wattled Crane** *Grus carunculatus*, a globally threatened species (BLI 2005b), thus emphasising the importance of the study site. For reasons of access, we selected five 10x10km squares along the Didola to Delo Mena road and one other square inside the park boundary as the study area (**Fig 1**), the total study area therefore being 600km². As it happens, half the survey work was conducted inside the National Park and half around the outer perimeter.

Habitats

During the survey, we recorded the habitat for each **Wattled Ibis** sighting. Field guides (*eg* Williams & Arlott 1993, van Perlo 1995) record the habitat of **Wattled Ibis** rather generally as fields, grasslands, and heathland within the 1500 to 4100m altitude band, often near water; roosts and breeding sites are on cliffs (Brown *et al* 1982). Urban & Brown (1971) had classified habitats of Ethiopian birds more stringently and initially we followed their method in this survey. However, neither their habitat descriptions nor those of Ethiopian vegetation communities are covered sufficiently comprehensively, and so we had to supplement their 1971 classification to accommodate two habitats characteristic of the Robe area. In our study area, **Wattled Ibis** did not frequent cultivated fields and because there were few cliffs, roosted in trees. We encountered the species in five of the 1971 categories, but had to devise two additional categories for our

observations, H1 and H2 (see below). The habitat classification list for this survey was:

M2 Giant Lobelia *Lobelia gibberoa*/short-herb *Alchemilla* sp/tussock grass *Festuca* sp moorland, 3800 to 4100m.

F1/ F3 Kosso forest, and Juniper/*Podocarpus* sp forest at 2400 to 3200m asl.

G1 Highland grassland at 1800 to 2750m asl (in the Web Valley the grassland extends to 3400m).

D4 Cliffs and gorges, mainly bare rock.

A5 Highland streams and marshes.

H1 Cereal-based agriculture.

H2 Town and urban areas

Methods and Materials

The equipment we used in the survey comprised a Garmin Global Positioning System (GPS) receiver, model 12 ,Opticron 8 x 42 BGA binoculars, the Bale Mountains Trekking Map 1:200 000 scale from Digital Impressions plc (If you ever use this map, note that the northing grid lines are labelled incorrectly) and the better-detail 1:50, 000 scale topographical map series ETH 4 (DOS 450), sheets 0739-D4 and 0740-C3, Edition 1 SMGI/DOS (1976). All GPS observations and map references refer to the Universal Transverse Mercator (UTM) grid zone 37 and the Adindan Datum. We did not use telescopes for the survey work. Before beginning the survey, we cross-referenced our GPS readings, set to the Adindan Datum, to the map grid reference to confirm compatibility. The survey, counting only **Wattled Ibis**, was undertaken using modified line transects, carried out on foot, on horseback or using a vehicle (8 in total, **Table 1**) and point counts (Bibby *et al* 1992).

Line Transects

Wattled Ibises are conspicuous while feeding on their favoured open ground, making line transects from a vehicle practical and time-saving, enabling us to make numerous sightings. However, even 4WD vehicles had to give way to horses or Shank's pony for some transects. Our unit of measure for the survey was the individual adult and sub-adult **Wattled Ibis** in feeding flocks. We included sub-adults because close scrutiny was not always achievable due either to vehicle vibrations or to lack of time to stop and observe. We identified only six immature birds (lacking wattles) identified in the field. Three of the transect lines were surveyed just once but the remaining five were surveyed at least three times. The lines varied in length from 6 to 30km. We selected a distance band of 100m on either side of the transect line. The two observers counted birds on both sides of the vehicle. The total length of line transects was 116km and the transect survey area was 23.2km². The total observer survey effort amounted to 57.4hr. The locally employed driver also assisted, but his time was not included in the total. In addition, some line transects had to be undertaken by a single observer (Xavier Oudard) on foot, altogether some 15.5 observation hours. To maximise the rate of encounters during the more detailed line transect surveys on horseback that took place towards the end of the study period, we avoided agricultural land and kept to valley bottoms where **Wattled Ibis** sighting are more likely.

Table 1: Summary of **Wattled Ibis** Survey Line Transects

Transect	Square Number	How often surveyed	Length (km)	Area (ha)	Obs hours	No of birds sighted	Minimum no of birds	Habitat type	Sightings per hour	Ibis/km ²
1	6078	1	6	120	1	0	0	G1	0	0
2	6077	4	13	260	4	0	0	H1	0	0
3	5978 & 6078	5	30	600	6	158	58	H1 & G1	26.3	9.7
4	5878	3	7	140	1.5	74	30	G1	49.3	21.4
5	6076	4	25	500	4	49	22	H1&G1	12.2	5.5
6	5878	1	8	160	2	31	31	G1	15.5	19.4
7	5877	4	12	240	18.2	324	93	G1	17.8	38.8
8	5877	1	15	300	7.5	13	7	G1	1.7	2.3
Totals	-	23	116	2320	44.2	649	241	-	14.7	10.4

Point Counts

Point count locations were selected for convenience and where they provided a view across 100ha of open country (**Table 2**). Of the five sites surveyed, three were visited just once - the observation period was from 30-60 minutes. The remaining two sites were at camp locations where it was convenient to monitor first thing in the

morning and at last light. Although the site in Robe was situated in the middle of the town, **Wattled Ibis** could be seen and heard flying to and from roosts. The site at the Bale Mountains National Park HQ was surrounded by kosso *Hagenia abyssinica* and East African juniper *Juniperus procera* trees, in which we recorded **Wattled Ibis** roosting most mornings and evenings. However, to avoid duplication, birds at roosts were not included in the total numbers recorded. The area surveyed by point counts was 4.1km² and the survey effort 28 hrs. Despite January being the dry season in this region of Ethiopia, it did rain, but fortunately without reducing visibility significantly. Visibility in general was good; the wind moderate and survey work, except for roost counts, was done during full daylight.

Table 2: Summary of **Wattled Ibis** Point Counts

Point	Square No	Area (ha)	Obs hrs	Birds sighted	Min no birds	Habitat type	Sightings/hr	Ibis/km ²
1	6078	100	0.5	0	0	G1	0	0
2	6077	100	0.5	5	5 feeding	H1	10	5
3	6078	100	20.0	8	0	H2	0.4	0
4	5878	10	6.0	37	14 roosting	F1/F3	6.2	140
5	6076	100	1.0	0	0	G1, D4 & A5	0	0
Totals	-	410	28	49	19	-	1.8	n/a

Altogether, flocks of **Wattled Ibis** were recorded on 82 occasions and a total of 698 birds were sighted. Most of the sightings were of birds feeding in small or somewhat larger flocks (**Table 3**).

Table 3: Size range of feeding flocks of **Wattled Ibis** in the Bale Mountain area.

Flock Size (birds)	1	2	3-9	10-19	20+
Number of Flocks	6	12	34	5	15

Threats

The Ethiopian Wildlife and Natural History Society (EWNHS) when preparing the first national inventory of IBAs (1996) also produced a checklist of potential threats to birds. We used this list in the survey to identify potential threats in the study area. In general **Wattled Ibis** are not eaten or otherwise persecuted. They are not hunted or collected. The nature of the Oromo people who inhabit the Bale area is to live in harmony with the birds. In addition to our personal observations, we consulted local people about existing and new threats.

Results

We recorded a total of 698 sightings during the survey. Observation effort spent on line transects was 72.9 hours and on point counts 28 hours. The minimum number of **Wattled Ibis** derived from line transects and point counts was 246 (adults and sub-adults).

Table 4: **Wattled Ibis** numbers counted at hotspots.

Site	Eastings	Northings	Flock Size	Park Boundary
Senetti Plateau	0600258	0761849	22	Inside
Nibisofa	0592054	0785176	58	Outside
Web Valley	0580890	0775843	93	Inside
Gaysay Valley	0584512	0786756	30	Inside
Disho Lodge roost	0586967	0784342	14	Inside

Local Abundance

The area surveyed totalled 27.25km² or 4.5% of the study area where **Wattled Ibis** density was 10 birds/km². Five hotspots were identified (**Table 4**). All the sites lie close to the road and are accessible relatively easily.

Line transects and point counts were carried out as opportunity permitted, making site-selection a quasi-random process, but this is insufficiently rigorous to permit conventional statistical analysis of the data (Bibby *et al* 1992). The survey, having been conducted in a very small geographical area (600km²) relative to the overall extent of the habitat of the Bale region and the species range, and should not be considered as fully representative. Repeat surveys have been made possible because we recorded all the necessary

GPS coordinates of our point counts and line transects; these are available from the author. Once such surveys have been done, then there may be a valid basis for rough extrapolations to be made of total population numbers of the species.

Casual Observations

Wattled Ibis is endemic to Ethiopia and is distributed across most of the highland regions of the country (del Hoyo *et al* 1992). Their estimated range covers 490 000km² (BLI 2005a). I encountered the species on three occasions in January 2005 in Addis Ababa, but the commoner ibis species there is **Sacred Ibis**. I saw **Sacred** and **Wattled Ibises** foraging together. On the route south from Addis towards the Bale Mountains, the **Sacred Ibis** decreases in numbers and sighting of **Wattled Ibis** appeared to increase from 3 to 20 to 70, but I have insufficient data to confirm whether the latter's density increases from north to south. **Wattled Ibis** occurred in pockets of preferred habitat, which accords with its generally scattered distribution (del Hoyo *et al* 1992). In addition to the areas of local abundance I noted in Addis Ababa and the Bale Mountains National Park, I noted another, in the Arsi Region, some 250km on the road south from Addis Abba, close to the town of Meraro in an area of boulder fields.

Table 5: Numbers of **Wattled Ibis** in Tree Roosts

Date & Location	Time	No leaving	At roost
24 Jan 05 Dinsho Lodge	1800	-	3
26 Jan 05 Dinsho Lodge	0630	14	-
26 Jan 05 Dinsho Lodge	1715	-	3
26 Jan 05 Dinsho Lodge	1800	-	4
27 Jan 05 Dinsho Lodge	0630	6	-
27 Jan 05 Dinsho Lodge	0930	2	-
31 Jan 05 Nibisofa	0910	8	-
Sighting Totals	-	30	10

Discussion

As expected, during January we found no nests and observed no courtship displays, but roosting pairs at least provided a sign of the breeding season to come. I observed only two singletons, the rest of the birds seen were feeding in flocks on open ground, the typical pattern of **Wattled Ibis** distribution, such flocks comprising either 3-9 individuals or 20+ birds (Table 3). Along the Dodola to Dinsho Road the species fed alongside common warthogs *Phacochoerus africanus*. Contra del Hoyo *et al* (1992), we found no evidence that the **Wattled Ibis** has adapted to cultivation, for we never found any feeding in stubble, corn fields or freshly ploughed fields (H1) or in the extensive wheat fields surrounding the town of Robe. However, I did note **Wattled Ibis** feeding on ground that had been tilled one or two years previously and then left fallow. The species frequently is encountered close to habitation in village and towns. Its feeding preference seems to be for areas of short damp grass (G1) and highland vegetation (M2). Rough tussock grass and any short open grassy patches may attract probing birds. It was never recorded in water, appearing to prefer level ground - on only one occasion was it seen feeding on sloping ground. It was not recorded in scrub, woodland or forest. Rarely was it observed in the proximity of trees, except when roosting. Although **Wattled Ibis** have been recorded roosting on cliffs (Brown *et al* 1982, Williams & Arlott 1993, van Perlo 1995), we found that they seemed to prefer trees surrounding the Bale Mountains Park HQ lodge and leafless trees along the Robe to Dinsho road (Table 5). However, in the Bale Mountains area there are some cliffs that we did not survey. In these tree roosts, the birds appeared to roost in pairs and could be seen flying to them at around 1700-1830 or departing at 0630. That the species was more abundant inside the National Park boundary is more likely due to the Park containing little in the way of agricultural land rather than offering any greater protection.

Existing and potential threats are classified by the EWNHS as critical, major or low. In the study area only two, overgrazing and tree-felling, we suggest should be regarded as critical or major threats

to the **Wattled Ibis**. Low-level threats are over-exploitation, hunting, persecution, disturbance, introduced species, forestry, diversion of water, drainage, damming, geothermal extraction activity, irrigation, drought, fire, building development, road construction, mining, modernisation of agriculture and abandonment of traditional land management. Potential threats are: soil erosion, conversion to agriculture (farmers from northern Ethiopia have been relocated to this area) and extraction of ground water (small-scale extraction and irrigation has started and plans to expand the process exist).



Ethiopia. **Wattled Ibis** *Bost Rychia Carunculata* in habitat
© John Hughes.

Conclusions

- This paper presents the first baseline survey of the distribution of **Wattled Ibis** in the vicinity of Robe and the northeast corner of the Bale Mountains National Park.
- Population estimates are valid only for the survey 600km² survey area.
- The data collected in this survey provides useful reconnaissance information for future surveys.
- Both line transects and point counts appear to be appropriate methods for more detailed surveys of **Wattled Ibis**.
- The survey work on horseback was very effective, and although it was undertaken by an experienced horseman, in this part of Ethiopia, a pony, unlike European horses, when it is reined in it will stand still and allow the rider, without dismounting, to make notes and use GPS and binoculars! Horses are plentiful and hiring one costs about £1 per day.
- I anticipate that I will take the opportunity in future years to replicate this work.

Recommendations

- Subsequent surveys of this area should use the same line transects and point count locations.
- The use of horses is essential to undertake effective off-road survey work.

Acknowledgements

I am grateful to Xavier Oudard who supplied me with field notes for the four line transects that he completed on foot in the Web Valley on 31 Jan and 1 Feb 05 and to Lieuwe Dijken for the photograph of the **Wattled Ibis**. I also thank Mike Blair who provided valuable advice on the structure of this report.

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BLI. 2005b. BirdLife International species factsheet: Wattled Crane *Grus carunculatus*. Downloaded from www.birdlife.org/datazone/species 29 Nov 05.

Appendix I

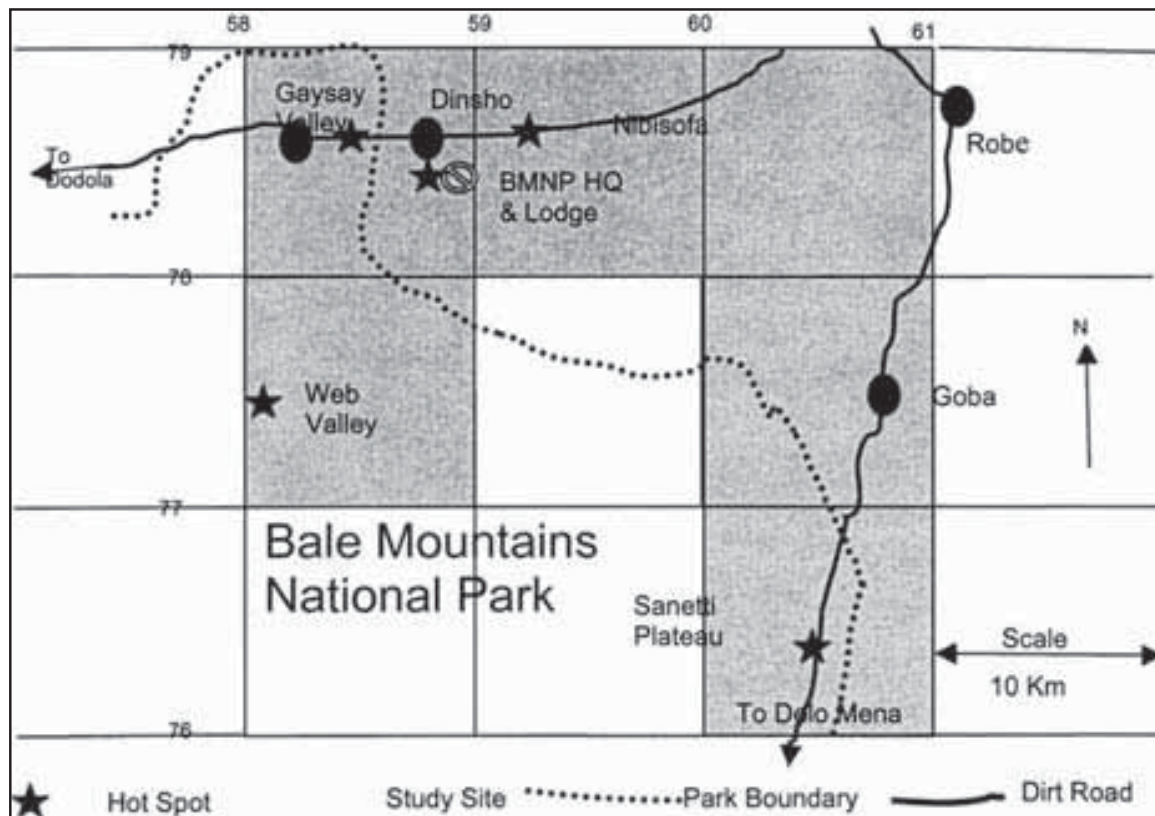
Ethiopian endemics and near-endemics seen in the Bale Mountains.

Common Name	Scientific Name	Remarks	Threat status
Blue-winged Goose	<i>Cyanochen cyanoptera</i>	Common on the Sanetti Plateau	NT
Rouget's Rail	<i>Rougetius [Rallus] rougetii</i>	6 seen on BMNP HQ to Finch 'Abera Waterfall trail	NT
White-collared Pigeon	<i>Columba albitorques</i>	Common in the Robe area	LC
Black-winged Lovebird	<i>Agapornis taranta</i>	A pair close to BMNP HQ	LC
Abyssinian Long-claw	<i>Macronyx flavicollis</i>	3 seen in Gaysay Valley	NT
Abyssinian (Black-headed) Siskin	<i>Serinus nigriceps</i>	Flocks of >20 common on the Sanetti Plateau	LC
Thick-billed Raven	<i>Corvus crassirostris</i>	5 birds seen singly	LC

NB The threat status categories are obtained from www.birdlife.org Data Zone (Species) and are derived from the 2005 IUCN Red List Categories (as evaluated by BirdLife International - IUCN's official Red List Authority for birds). LC= Least Concern, NT=Near Threatened.

Figure I.

Sketch of study area and **Wattled Ibis** *Bostrychia carunculata* hotspots. The six 10x10km squares of the study area are indicated. They include the towns of Goba, Robe and Dinsho. The area is reached via the dirt track road linking Dodola and Delo Mena. **Key:** The five stars mark the hotspots each containing from 22 to 93 **Wattled Ibises**.



Wideawake Surveys, The Old Shop, High Street, Shipton Bellinger, Hampshire, SP9 7UE, UK. e-mail john@rasuk.org



Winter Duck IV

The RAFOS coordinated land-based Wetlands Bird Survey (WeBS) of northwest Scotland 4-12 February 2005

FS John N Wells and Martin K Wightman

Introduction

In autumn 2004, one of us (JNW) suggested to the Royal Air Force Ornithological Society (RAFOS) Committee that it would be timely to undertake another in the series of Winter Duck field studies, again in Scotland. The Society's membership approved the Committee proposal to do so. The previous Winter Duck survey results were given by Godfrey (2003). Volunteers were forthcoming from RAFOS expedition regulars, including civilian members with considerable ornithological expertise. This paper details the survey work carried out by RAFOS Winter Duck IV (2005).

Because RAFOS has considerable experience in implementing formal fieldwork in the remoter parts of Scotland, it has built up an excellent working relationship with major ornithological organisations such as the British Trust for Ornithology (BTO) and the Royal Society for Protection of Birds (RSPB) in Scotland. Previous work and research had enabled us to identify suitable accommodation. The Wetland Bird Survey (WeBS) is a regular nationwide survey of species dependent on wetlands, which for this purpose is defined as including much of the shoreline and most freshwater reservoirs and lakes. One of the weaknesses in the WeBS is that remote areas are poorly covered, making RAFOS' intention to cover northwest Scotland for Winter Duck IV very welcome. WeBS is a coordinated effort requiring much fieldwork. Results collation on behalf of the Joint Nature Conservation Committee (JNCC) (and their regional equivalents, such as Scottish Natural History (SNH)) by three other national organisations, the Wildfowl & Wetlands Trust (WWT), the BTO and the RSPB. RAFOS' Winter Duck work is coordinated by the BTO. On Winter Duck IV, RAFOS used Core Count Single Visit survey forms throughout the week; these provide 'snapshot' counts of just a single visit to each site.

The field study was carried out between 4 and 12 Feb 2005, the main area of coverage being the coastline of northwest Scotland between Loch Carron (NG901 400) and Kinlochbervie (NC205 550). In Addition, the northern sea lochs between Cape Wrath (NC255 750) and Kyle of Tongue (NC600 600) were also visited, these having been added to the Winter Duck area in 2000/2001. Martin Wightman (MJW) compiled the systematic list of observations (**Appendix 1**) for this paper, additional to those data in the WeBS recording forms sent to the BTO.

The 12-strong group consisted of 4 serving and 8 civilian RAFOS members. As well as the general recording of wildfowl for WeBS, Winter Duck IV was to collect data as part of a coordinated land-based survey of wintering sea duck, divers and grebes. The three previous Winter Duck surveys had been carried in the winters of 98/99, 99/00, and 00/01, and all have been recognised as of major scientific importance. The successful RAFOS contributions from the previous Winter Duck surveys have been formally recognised in the WeBS reports issued on behalf of the partnership scheme by the WWT (Pollitt *et al* 2003, Musgrove *et al* 2001). A list of participants and their roles is at **Appendix 4**.

Aims

Wetland Bird Survey Aims

The WeBS aims are twofold: to monitor all non-breeding waterbirds in the UK and to provide the principal data on which the conservation of their populations and wetland habitats is based. To this end, WeBS has three main objectives:

- To assess the size of non-breeding waterbird populations in the UK.
- To assess trends in their numbers and distribution; and
- To assess the importance of individual sites for waterbirds.

The results from WeBS, a recognised national undertaking, contribute to the monitoring of key indicators in the government's 'Quality of Life Indices', which provide a means of measuring the health of the birds and their environments. The WeBS results also form the basis for informed decision-making by conservation bodies,

planners and developers and contribute to the sustainable and wise use and management of wetlands and their dependent waterbirds (Musgrove *et al* 2001, Collier *et al* 2005).

Winter Duck IV Aims

- To undertake the fourth in the RAFOS series of field studies undertaken on behalf of the BTO WWT and RSPB for JNCC as coordinated by the BTO's Head of Wetlands Unit. The survey would, as far as possible and using 'Core Count - Single Visit' WeBS forms, cover those areas previously visited by RAFOS and other.
- To undertake systematic and regular counts of Loch Kerry (which forms part of Loch Gairloch) identified by previous study as being an important site for overwintering wildfowl in particular **Common Goldeneye** *Bucephala clangula*. NB Because the site requires permission to access it via a private road, the grid reference is not quoted.
- To expand survey areas to include additional sites from a list of areas (wetland areas) provided by The BTO. These sites had not been previously visited, nor have they been part of any previous WeBS study.
- To observe and monitor on behalf of the BTO and RSPB Scotland **White-tailed Eagle** *Haliaeetus albicilla* as part of the release programme; the observations provided information towards the wing tagging and ringing study.
- To carry out additional passerine and waterbird observations during travel to and from WeBS survey count areas, the results of which would be sent to The Highland Bird Club for their annual records.

WeBS Survey Methodology

The BTO had requested RAFOS to revisit the area, because of the paucity of local WeBS surveyors and a lack of experienced ornithologists who could cover the region. RAFOS had agreed, not only because the task met the Society's ethos, but also because it has the knowledge and logistical capability to carry out this work. As in previous Winter Duck surveys, the methodology directed by the BTO and used by the RAFOS team followed the BTO guidelines. The team undertook a 'snapshot' approach using standard 'Core Counts - Single Visit', standard recording forms, the same as those sent to all WeBS surveyors across the UK. These visits are not time-dependent. The form dictates single counts where all waterbirds are recorded, though counting gulls and terns is optional. The group decided to count all gulls.

Being limited to the 6 count days, we split the group into three teams and allocated specific geographic areas to achieve the maximum possible coverage. The large distances we had to travel each day dictated our coverage strategies: we could either drive to the nearest point of a designated area and survey the area until daylight faded before returning to base or drive to the furthest point of a designated area and survey the area as part of the return journey. Past experience had taught us to combine the longest journeys with additional overnight 'outstations', particularly north of Ullapool. The dangers of driving for hours in the dark and in poor conditions after a very hard day's effort had to be avoided. Although RNE Aultbea was our main base, in 2005 we also booked a self-catering cottage in the village of Elphin (Jim Bryden's suggestion). This allowed Team 2 both flexibility in selecting large areas to survey and enabled them to be on-site much earlier.

The coastal sites were counted under prevailing tidal conditions and were coordinated with adjacent count teams or with adjacent sectors to avoid the possibility of double counting. As in previous Winter Duck surveys, the BTO allocated RAFOS a unique count code: 10011. The site survey sequence followed (wherever possible) that of earlier survey visits. Sector boundaries followed those previously defined and so the master Ordnance Survey (OS) 1:50 000 maps from the 00/01 Winter Duck survey could be used again; all maps were annotated with site and sector boundaries.

Observations

Although wildfowl and wader counts are integral to the WeBS, our experience from previous surveys has shown that it is important first to assess and count the number of divers *Gavia sp* present at a given site. The nature of the coastline, the remoteness of some of the lochs and the sparseness of the population means that the area has traditionally received little WeBS coverage. Over the years, RAFOS has identified a number of sites of national importance for wintering divers, particularly **Black-throated Diver** *Gavia arctica* (Pollitt *et al* 2003). Our typical approach would therefore involve an initial sweep for divers, followed by counts of all other species present, followed by a further sweep for divers and sea-duck. This second sweep is important for several reasons. Firstly, **Great Northern Divers** *G. immer* may dive regularly to depths in excess of 10 metres, remaining submerged for up to one minute (Cramp & Simmons 1977). Secondly, typical weather conditions in this region at this time of year usually involve choppy seas and strong winds - keeping one's telescope steady and dry is not as easy as it sounds - on open coastal waters the weather was bracing on most days! Whilst **Red-throated Divers** *G. stellata* occur closer to shore than other divers, they may still occur be far enough out to sea to make observations difficult. At large open sites they may range widely (Mugrove *et al* 2001).

During the course of the survey, **Black-throated** and **Great Northern Divers** were observed gathering in groups as dusk approached. Some discussion took place as to why this might be, the consensus being that the birds had developed the habit for reasons of safety in numbers or that acting communally at that time helped maintain contact before they headed into open water for the night. It can be surmised that 'safety in numbers' whilst roosting or sleeping explains in part why both species are more gregarious during the winter period (Gooders 1975, Cramp & Simmons 1977, Carboneras 1992). We observed groups of 7 **Great Northern Divers** on Gairloch, and up to 5 on Loch Ewe pre-dusk.

Team 1 remained at RNE Aultbea for the duration of the survey. Teams 2 and 3 moved to accommodation at Elphin and Cape Wrath respectively (**Appendix 5**). On completion of the main survey work, opportunities were taken during a day of recreational birdwatching to:

- Visit new or previously unwatched areas.
- Ascertain new sites for observing **White-tailed Eagle**.
- Visit woodland sites to determine their potential as breeding areas and to improve our knowledge of sites in the region.
- Recover from days of intense effort.

During that day, many of the group revisited Loch Kerry (Loch Gairloch), where a salmon hatchery outfall served as a sheltered feeding site for **Common Goldeneye**, **Mallard** *Anas platyrhynchos* and a variety of gull species. Team 2 also checked Ullapool for rarer gulls. Non-survey bird species seen and other wildlife recorded are at **Appendix 3**.

On completion of the survey, JW and Gp Capt Jerry Knights handed over the completed count forms and the marked-up OS maps of the survey sectors to Dr Andy Musgrove, the BTO's WeBS Coordinator. As for previous occasions (*eg* Cranswick *et al* 2005), the data will supplement the overall WeBS report for 2005. It is likely that these data will assist the BTO and their WeBS partners in improving the quality of their database of WeBS sites in northwest Scotland. The successful conclusion to Winter Duck IV will also assist in planning further RAFOS work for the BTO. The OS Maps used on Winter Duck IV had kindly been donated by the University of London Air Squadron (ULAS), based at RAF Wyton.

Sites in the UK of National Importance for Diver Species

Since the Winter Duck series began in 1999/2000, RAFOS observations have shown that a number of sites are more important for several species than their published regional or national conservation status indicated. Consequently, many sites have had their conservation status revised upwards. Published WeBS reports indicate the change of status by use of a standard symbol in their tables. Examples of sites where RAFOS data have enabled them to pass the appropriate qualifying levels are (from the 1999/2000 WeBS report) Red Point to Port Henderson, Gruinard Bay, Loch Eriboll, Loch Ewe and Kyle of Tongue. Further details are available in Musgrove *et al* (2001).

Results

The totals of divers recorded on all Winter Duck expeditions so far are included in **Tables 1-3** below.

Survey Results

Within the constraints of time, weather, travelling distances and fuel costs, the maximum number of survey areas possible were visited

Survey effort

- The 3 teams completed a total of 149 WeBS Survey forms, the highest number of any Winter Duck expedition. For this WeBS survey, some larger sites, such as Loch Ewe and Gruinard Bay were divided into up to 8 sectors.
- The 3 teams visited over 190 sites. The Winter Duck IV gazetteer giving four-figure grid references for each site is at **Appendix 2**.

The results achieved represent a vast workload for the group and a sizeable input to the WeBS Survey for a remote region.

Tables 1-3: Comparisons of bird numbers for three diver species at sites of national significance, taken from WeBS surveys (some non-RAFOS).

NB These sites have all surpassed at some time the qualifying levels required as given in Musgrove *et al* (2001) and Collier *et al* (2005).

Table 1: Red-throated Diver *Gavia stellata* (GB species mean threshold value for any site = 50)

Site	98-99	99-00	00-01	04-05	Mean
Loch Ewe	-	1	2	1	1
Loch Gairloch	3	0	2	0	1
Gruinard Bay	0	1	0	2	1
Loch Inver	-	-	-	3	3
Loch Eriboll			(1)		1

NB Although this species never approached its GB threshold value, the results are included to show that its preferences are not related to numbers of other divers present. The low numbers found may reflect that a relatively mild winter might permit this species to remain more widespread.

Table 2: Black-throated Diver *Gavia arctica* (GB species mean threshold value for any site = 7)

Site	96-97	97-98	98-99	99-00	00-01	04-05	Mean
Gruinard Bay	-	68	34	(14)	(11)	27	30
Applecross Bay-Sand	-	-	40	-	0	0	13
Loch Ewe	8	7	36	29	15	0	15
Red Point to Port Henderson	-	29	3	9	11	30	16
Loch Gairloch	-	-	4	5	23	30	15
Little Loch Broom	-	-	4	1	17	3	6
Polbain (§)	-	-	9	0	0	1	2
Applecross Bay-Milton						4	4
Kyle of Durness	-	-	-	-	4	0	2
Loch Eriboll	-	-	-	-	6	0	3

Table 3: Great Northern Diver *Gavia immer* (GB species mean threshold value for any site = 30)

Site	96-97	97-98	98-99	99-00	00-01	04-05	Mean
Gruinard Bay	-	42	5	9	(7)	24	17
Camas Dubh Aird	-	10	9	-	-	3	7
Loch Ewe	22	20	4	8	6	19	13
Red Point to Port Henderson	-	7	9	4	0	30	10
Loch Gairloch	-	-	5			13	9
Little Loch Broom	-	-	(5)	2	16	8	7
Polbain (§)	-	-	-	-	0	2	1
Applecross Bay-Milton					0	2	1
Applecross Bay-Sand	-	14	6	-	0	0	5
Kyle of Durness	-	-	-	-	5	0	2
Loch Eriboll	-	-	-	15	(1)	0	5

NB Due to the variable nature of coverage of key sites coupled with difficulties of surveying offshore waters, trends are difficult to detect for this species. The table shows that key sites for this species are counted on an irregular basis, due to their remote nature and the need for specialist (often boat-based) surveys (Collier *et al* 2005).

Key to symbols

- () = Incomplete count - due to visibility/time/weather/travel difficulty.
 - = No count or no record of any count by WeBS or RAFOS.
 (§) = Site no longer meeting qualifying levels in Musgrove *et al* (2001).
 = May have been counted as part of larger site or sector.

The totals of **Great Northern Diver** (111) and **Black-throated Diver** (68) were higher than for any previous counts. It is probable that some sites, such as Redpoint, Loch Gairloch and Loch Ewe, were favoured because of prevailing weather, sea conditions and light. Some birds were observed congregating in roosting areas as the light conditions and time of day dictated. Unexpectedly, **Great Northern** and **Black-throated Divers** were absent from the northern sea lochs, but Team 3 did see small numbers of **Red-throated Divers**. The reasons for the lack of divers are not known, but the north-facing aspect of the lochs may be a significant factor.

Grebe species counts were noticeably lower than expected possibly because fewer birds had come from the continent in the 2004-5 winter due to the milder weather, which also put birds wintering further north under no pressure to move south to find food. There were only 15 records of **Little Grebe** *Tachybaptus ruficollis* and one of **Slavonian (Horned) Grebe** *Podiceps auritus*, a favoured previous haunt, Upper Loch Torridon, drawing a blank **Black-necked Grebe** *P. nigricollis* was not seen.

Figure 1 shows the areas surveyed on Winter Duck IV. After Team 1 had completed not only their allocated areas (Redpoint in the south to Ullapool in the north) but also their extended coverage (around Loch Ewe), they assisted Team 2 to complete the north shore of Upper Loch Torridon, finding good numbers of **Great Northern** and **Black-throated Divers** in favoured lochs.

Team 2 covered their survey areas north of Ullapool and as far north as Oldshoremore (just north of Kinlochbervie) inside 3 days in good weather conditions; they visited some sites that had not been surveyed since 99/00, (the 00/01 weather had been bad). Once finished at Elphin, Team returned to RNE Aultbea on the evening of Tuesday 8th, going on to survey Loch Carron, Loch Kishorn, the Applecross Peninsula and the south shore of Upper Loch Torridon.

Team 3 completed their survey areas between Cape Wrath and Kyle of Tongue inside 3 days, enabling them to extend the survey to new locations along the northernmost coastline and also south inland to include Strathnaver and the Naver Valley. They surveyed Loch Broom on their return leg, going on to visit new sites at Slaggan Bay and also 4 inland lochs north of Mellon Charles by a track accessible only by a 4 x 4 vehicle, sampling their future potential.

Loch Kerry (an area of Loch Gairloch favoured by many birds because of the salmon hatchery outfall) was visited on most days to survey **Common Goldeneye** (the peak count of 173, though impressive, being lower than on previous visits), gull and duck species, recording all species present.

The group, notified of a new site for observing White-tailed Eagle, reconnoitred it before formal observations were carried out on the last day. A wing-tagged immature was observed at close range, details having been given to the BTO. This new site, south of RNE Aultbea, will allow future Winter Duck participants to observe this species, even on survey days. Bird wing tag details have been withheld at request of the RSPB and BTO.



Figure 1. Outline map showing Winter Duck IV survey areas (shaded). By kind permission of the BTO (© BTO).

Conclusions

The dedicated and experienced Service and civilian RAFOS members making up the Winter Duck survey teams collected extremely important data for the WeBS organising authorities, BTO, WWT, RSPB and JNCC. These high-quality data will help refine the input to the UK Government's 'Quality of Life Index' because they concern monitored key species. Winter Duck IV maintained and improved the standard of achievement set previously.

Recommendations

RAFOS should:

- Assist with future WeBS Survey work in northwest Scotland.
- Obtain sponsorship for future work, because the overall costs of this scale of effort are beyond personal contributions and could not be met regularly from RAFOS funds.
- Maintain the excellent partnership with the BTO for future data-collection work.
- Develop a planning and leadership strategy for fieldwork of this type so that best use is made of the talents of both Service and civilian members.

Acknowledgements

This RAFOS expedition was self-financing but could not have been successful without the generous sponsorship obtained from Air BP International. The advice and assistance of Dr Andy Musgrove and Steve Holloway at the BTO, before, during and after Winter Duck IV is greatly appreciated. We thank ULAS for providing Winter Duck IV with OS maps.

Appendices

1. Winter Duck IV - Systematic List (Martin K Wightman).
2. Winter Duck IV - Gazetteer of Locations (Martin K Wightman).
3. Winter Duck IV - Non-survey bird sightings of interest and other species.
4. Winter Duck IV - Participants.
5. Winter Duck IV - Travel and accommodation.

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Appendix I

Winter Duck IV- Systematic List
Martin K Wightman

The systematic list was compiled to accord with the order and nomenclature in the 'British Birds' list of birds of the Western Palearctic (1997). During editing, some taxonomy changes as accepted by the BOU have been made and a few names modified to accord with the International Ornithological Congress final draft world list of English names (However, there are 'Divers', not 'Loons' in this list). Some common alternative English names are placed in brackets. The IOC order and sequence has not been followed because it is not yet formally published. All dates are in February 2005. Daily count tables are included where possible. The term 'recorded daily' should be taken to understand the period from 05-11 February 2005 inclusive.

Red-throated Diver *Gavia stellata*.

Date	5	6	7	8	9	10	11
Number	0	0	11	6	0	2	2

Highest counts: Kyle of Tongue, 4 on 7th, Loch Eriboll, 3 on 7th and Lochinver, 3 on 8th.

Black-throated Diver *Gavia arctica*

Date	5	6	7	8	9	10	11
Number	1	33	0	8	5	8	13

Highest counts: Loch Gairloch, 18 on 6th, Port Henderson, 9 on 6th and Laide, 7 on 10th.

Great Northern Diver *Gavia immer*

Date	5	6	7	8	9	10	11
Number	4	35	24	37	4	7	5

Highest counts: Redpoint, 17 on 6th, Boor, 8 on 7th, Cove, 7 on 7th.

Little Grebe *Tachybaptus ruficollis*

Highest counts: Loch Duartmore, 7 on 7th, Loch Borrallie, 6 on 6th, Old Dornie, 5 on 5th.

Date	5	6	7	8	9	10	11
Number	0	17	8	3	5	2	0

Slavonian (Horned) Grebe *Podiceps auritus*. Ormiscaig, 1 on 11th.

Northern Fulmar *Fulmarus glacialis*

Date	5	6	7	8	9	10	11
Number	0	39	48	0	0	18	4

Highest counts: Droman, 30 on 7th, Mellon Udrigle, 18 on 10th, Rispond Bay, 14 on 7th.

Manx Shearwater *Puffinus puffinus*. Laide, 1 on 19th.**European Storm Petrel** *Hydrobates pelagicus*. Milton, 1 on 9th.

Northern Gannet *Morus bassanus*. Scourie Bay, 1 on 7th, Rubha nan Sasan, 1 on 10th.

Great Cormorant *Phalacrocorax carbo*

Date	5	6	7	8	9	10	11
Number	0	14	19	1	0	52	0

Highest counts: Loch Shieldaig (Torridon), 49 on 10th, Redpoint, 6 on 6th, Cove, 6 on 7th.

European Shag *Leucocarbo aristoteli*

Date	5	6	7	8	9	10	11
Number	6	211	230	177	33	62	6

Highest counts: Cove, 158 on 7th, Redpoint, 92 on 6th, Big Sand, 33 on 6th.

Grey Heron *Ardea cinerea*

Date	5	6	7	8	9	10	11
Number	3	32	21	15	12	18	3

Highest counts: Charlestown, 11 on 6th, Loch Kanaird, 10 on 6th, Lochinver, 8 on 8th.

Whooper Swan *Cygnus cygnus*. Lochan Sgeireach, 4 on 6th, Kylesku, 2 on 7th, Balnakeil Bay, 10 on 7th, 11 on 8th, Loch Meadie, 3 on 8th, Lochan nam Breac, 3 on 9th, 5 on 10th, Lochan na Glamhaichd, 4 on 9th.

Pink-footed Goose *Anser brachyrhynchus*. Melangaun, 1 on 7th, Balnakeil, 1 on 7th, 5 on 8th.

Greylag Goose *Anser anser*

Date	5	6	7	8	9	10	11
Number	0	76	451	361	93	251	0

Highest counts: Balnakeil, 230 on 8th, Kyle of Tongue, 196 on 7th, Loch Caladail, 84 on 7th.

Barnacle Goose *Branta leucopsis*

Date	5	6	7	8	9	10	11
Number	86	95	761	1277	0	97	98

Highest counts: Balnakeil, 1000 on 8th, Rispond Bay, 550 on 7th, Kyle of Tongue, 152 on 8th.

Common (Northern) Shelduck *Tadorna tadorna*. Laide, 1 on 7th, Kyle of Tongue, 8 on 8th, River Kishorn, 3 on 9th, Loch Kanaird, 3 on 9th.

Eurasian Wigeon *Anas penelope*

Date	5	6	7	8	9	10	11
Number	0	6	16	0	24	12	0

Highest counts: Traigh bad na Baighe, 16 on 7th, Applecross Bay, 13 on 9th, Annat, 12 on 10th.

Eurasian (Common) Teal *Anas crecca*. Reiff, 12 on 6th, Inchnadamph, 2 on 6th, Loch an Obain, 5 on 7th, Balnakeil, 7 on 7th, 55 on 8th, Laide, 7 on 8th, River Kishorn, 20 on 9th.

Mallard *Anas platyrhynchos*

Date	5	6	7	8	9	10	11
Number	5	178	109	168	109	60	61

Highest counts: Loch Kerry, 120 on 6th, River Kishorn, 81 on 9th, Loch Hope, 62 on 8th.

Common Eider *Somateria mollissima*

Date	5	6	7	8	9	10	11
Number	0	181	53	3	41	45	108

Highest counts: Loch Gairloch, 85 on 6th, Big Sand, 75 on 11th, Loch Eriboll, 49 on 7th.

Long-tailed Duck *Clangula hyemalis*. Redpoint, 9 on 6th, Kyle of Tongue, 3 on 7th, First Coast, 3 on 8th, River Kishorn, 1 on 9th, Loch Broom, 1 on 9th.

Common Scoter *Melanitta nigra*. Gruinard Bay, 3 on 8th, 2 on 10th, 1 on 11th, Ullapool, 2 on 9th.

Common Goldeneye *Bucephala clangula*

Date	5	6	7	8	9	10	11
Number	0	157	18	19	15	154	173

Highest counts: Loch Kerry, 140 on 6th, 140 on 10th, 173 on 11th.

Red-breasted Merganser *Mergus serrator*

Date	5	6	7	8	9	10	11
Number	5	21	57	12	18	25	10

Highest counts: Boor, 29 on 7th, Loch Shieldaig (Torridon), 10 on 10th, Ob Mheallaidh, 9 on 10th.

Goosander Common Merganser *Mergus merganser*. River Kerry, 1 on 6th, Loch Tollaidh, 1 on 9th, Annat, 1 on 10th.

White-tailed Eagle *Haliaeetus albicilla*. Gruinard Island Viewpoint, 1 on 5th, 1 on 8th, 2 adults on 10th, Longa Island, a juvenile on 11th with wing-tag.

Eurasian Sparrowhawk *Accipiter nisus*. Mellon Charles, 1 on 7th, Toscaig, 1 on 9th, Loch a' Chracaich, 1 on 9th, Loch Shieldaig (Torridon): 1 on 10th.

Common Buzzard *Buteo buteo*

Date	5	6	7	8	9	10	11
Number	1	19	11	8	3	2	4

Highest counts: Dundonnell, 3 on 6th, Kinlochbervie, 3 on 7th.

Golden Eagle *Aquila chrysaetos*. Loch bad á Ghaill, 1 on 6th, Loch Osgaig, 2 on 6th, Achiltibuie, 1 on 6th, Loch Hope, 2 on 8th, Inveralligan, 1 on 10th.

Common Kestrel *Falco tinnunculus*

Date	5	6	7	8	9	10	11
Number	0	3	3	0	1	2	5

Highest counts: Kyle of Durness, 2 on 6th, Big Sand, 2 on 11th.

Merlin *Falco columbarius*. Loch Caladail, 1 on 7th, Leathad Mor, 1 on 10th.

Peregrine Falcon *Falco peregrinus*. Longa island, 1 on 10th, 1 on 11th.

Common Pheasant *Phasianus colchicus*. Syre Lodge, 2 on 8th, Dundonnell, 1 on 9th, 1 on 11th, Inveralligan, 1 on 10th.

Oystercatcher *Haematopus ostralegus*

Date	5	6	7	8	9	10	11
Number	43	85	243	160	238	175	89

Highest counts: Applecross Bay, 120 on 9th, Kyle of Tongue, 104 on 7th, Gruinard Island Viewpoint, 58 on 10th.

Common (Great) Ringed Plover *Charadrius hiaticula*

Date	5	6	7	8	9	10	11
Number	2	73	56	39	72	82	18

Highest counts: Annat, 45 on 10th, Balnakeil, 33 on 9th, Loch Gairloch, 24 on 6th.

European Golden Plover *Pluvialis apricaria*. Mellon Udrigle, 1 on 8th.

Northern Lapwing *Vanellus vanellus*. Achiltibuie, 1 on 6th, Loch Thurnaig, 2 on 7th, Balnakeil, 15 on 7th, Gruinard Island Viewpoint, 4 on 10th, 4 on 11th, Mellon Charles, 1 on 10th.

Sanderling *Calidris alba*. Balnakeil, 1 on 9th.

Common Snipe *Gallinago gallinago*. Mellon Charles, 1 on 6th, Opinan (Redpoint), 1 on 6th, Mellon Udrigle, 1 on 10th.

Eurasian Curlew *Numenius arquata*

Date	5	6	7	8	9	10	11
Number	83	74	180	78	38	41	5

Highest counts: Dundonnell, 75 on 5th, Tongue House, 48 on 7th, Kyle of Tongue, 33 on 7th.

Common Redshank *Tringa totanus*

Date	5	6	7	8	9	10	11
Number	2	5	36	6	29	16	0

Highest counts: River Kishorn, 26 on 9th, Kyle of Tongue, 15 on 7th, Kyle of Durness, 7 on 7th.

(Ruddy) Turnstone *Arenaria interpres*. Loch Gairloch, 5 on 6th, Loch Kanaid, 2 on 9th, River Kishorn, 3 on 9th, Ullapool, 8 on 11th.

Black-headed Gull *Larus ridibundus*

Date	5	6	7	8	9	10	11
Number	0	212	0	6	0	94	118

Highest counts: Loch Kerry, 212 on 6th, 45 on 10th, 110 on 11th.

Common Gull *Larus canus*

Date	5	6	7	8	9	10	11
Number	0	258	180	163	283	118	71

Highest counts: Loch Broom, 150 on 6th, Dundonnell, 133 on 9th, Balnakeil, 100 on 7th.

Herring Gull *Larus argentatus*

Date	5	6	7	8	9	10	11
Number	22	376	330	453	907	404	465

Highest counts: Loch Broom, 446 on 9th, Loch Kerry, 400 on 11th, River Kishorn, 230 on 9th.

Iceland Gull *Larus glaucooides glaucooides*. Loch Kerry, an adult on 6th, an adult on 10th, Kinlochbervie, 3 1st-winters on 7th, Loch Kirkaig, a 1st-winter on 8th, Badnaban, a 1st-winter on 8th, Lochinver, a 1st-winter on 8th, Clashnessie Bay, an adult on 8th, Loch a' Chàim Bhàin, 2 1st-winters on 8th, Loch Kanaid, an adult on 9th, Loch Shieldaig (Torridon): a 1st-winter and a 2nd-winter on 10th, Big Sand, a 1st-winter on 11th, Ullapool, a 1st-winter and a 2nd-winter on 11th.

Kumlien's Gull *Larus glaucooides kumlieni*. Ullapool, a 2nd-winter on 9th, Loch Kerry, an adult on 11th.

Glaucous Gull *Larus hyperboreus*. Redpoint, a 1st-winter on 6th, Loch Croispol, an adult on 6th, Aultbea, a 1st-winter on 7th, Camusnagaul, a 1st-winter on 7th, a 1st-winter on 9th, Kinlochbervie, a 1st-winter on 7th, Balnakeil, a 1st-winter on 8th, Loch Kanaid, a 1st-winter on 9th, Ullapool, a 1st-winter on 9th, Loch Broom, a 1st-winter on 9th, Achintraid, a 1st-winter on 9th, Loch Shieldaig (Torridon), a 1st-winter on 10th, Loch Kerry, a 3rd-winter on 10th.

Great Black-backed Gull *Larus marinus*

Date	5	6	7	8	9	10	11
Number	13	97	106	130	250	205	72

Highest counts: Loch Broom, 77 on 9th, River Kishorn, 65 on 9th, Loch Shieldaig (Torridon), 62 on 10th.

(Black-legged) Kittiwake *Rissa tridactyla*. Rubha nan Sasan, 1 on 10th.

Common Guillemot *Uria aalge*

Date	5	6	7	8	9	10	11
Number	0	38	0	5	0	7	2

Highest counts: Redpoint, 32 on 6th, Rubha nan Sasan, 5 on 10th.

Razorbill *Alca torda*. Redpoint, 17 on 6th, Charlestown, 3 on 6th, Cove, 2 on 7th, Mellon Udrigle, 2 on 8th, Rubha nan Sasan, 1 on 10th, Big Sand, 1 on 11th.

Black Guillemot *Cepphus grylle*

Date	5	6	7	8	9	10	11
Number	2	52	8	23	15	31	11

Highest counts: Redpoint, 18 on 6th, Loch Shieldaig (Torridon), 14 on 10th, Charlestown, 8 on 6th.

Little Auk *Alle alle*. Mellon Udrigle, 1 on 7th, 2 on 8th, 1 on 10th.

Atlantic Puffin *Fratercula arctica*. Port Henderson, 1 on 6th.

Rock Dove *Columba livia*

Date	5	6	7	8	9	10	11
Number	0	3	32	120	12	8	19

Highest counts: Druim bad a' Ghail, 40 on 8th, Clachtoll, 25 on 8th, Sangobeg, 20 on 8th.

Woodpigeon *Columba palumbus*. Aird, 1 on 6th, Shieldaig (Gairloch), 5 on 6th, Tongue House, 12 on 7th, Achargary, 14 on 8th, Applecross Bay, 1 on 9th, Mellon Charles, 14 on 11th.

Eurasian Collared Dove *Streptopelia decaocto*. Aird, 3 on 6th, Dundonnell, 1 on 6th, Ullapool, 6 on 6th, 1 on 9th, Poolewe, 2 on 7th, Badcaul, 2 on 7th, Badnaban, 1 on 8th.

Great Spotted Woodpecker *Dendrocopos major*. Leacnasaid, 1 on 6th, Slattadale Forest, 4 on 11th.

Eurasian Skylark *Alauda arvensis*. River Kishorn, 1 on 9th.

Meadow Pipit *Anthus pratensis*

Date	5	6	7	8	9	10	11
Number	0	5	1	10	2	13	1

Highest counts: Mungasdale, 7 on 8th, Mellon Charles, 11 on 10th.

Rock Pipit *Anthus petrosus*

Date	5	6	7	8	9	10	11
Number	0	3	16	7	4	7	0

Highest counts: Droman, 11 on 7th, Tarbet, 3 on 7th, Mellon Udrigle, 3 on 8th, Achintraid, 3 on 9th, Laide, 3 on 10th.

Grey Wagtail *Motacilla cinerea*. Mellon Charles, 1 on 5th, 1 on 11th, Achintraid, 1 on 9th.

Pied Wagtail *Motacilla alba yarrelli*. Mungasdale, 1 on 8th.

(White-throated) Dipper *Cinclus cinclus*. Inchnadamp, 1 on 6th, Loch Hope, 1 on 8th, River Kishorn, 1 on 9th, River Kerry, 1 on 10th, Balgy, 1 on 10th.

(Winter) Wren *Troglodytes troglodytes*

Date	5	6	7	8	9	10	11
Number	0	0	1	3	1	0	3

All records were of single birds.

Dunnock (Hedge Accentor) *Prunella modularis*. Elphin, 1 on 8th, Rough Haugh, 1 on 8th, Inveralligan, 3 on 10th, Mellon Udrigle, 1 on 10th, Poolewe, 2 on 11th.

European Robin *Erithacus rubecula*

Date	5	6	7	8	9	10	11
Number	0	11	6	7	4	4	4

Highest counts: Aird, 6 on 6th, Big Sand, 3 on 11th.

Eurasian (Common) Stonechat *Saxicola torquatus*

Date	5	6	7	8	9	10	11
Number	0	2	2	4	0	3	1

All records were of single birds.

Common Blackbird *Turdus merula*

Date	5	6	7	8	9	10	11
Number	0	10	3	4	0	6	3

Highest count: Aird, 4 on 6th.

Fieldfare *Turdus pilaris*

Date	5	6	7	8	9	10	11
Number	34	1	2	4	0	6	1

Highest counts: Dundonnell, 34 on 5th, Opinan (Gruinard Bay), 6 on 10th, Mellon Udrigle, 3 on 8th.

Song Thrush *Turdus philomelos*

Date	5	6	7	8	9	10	11
Number	0	13	2	3	1	2	1

Highest counts: Mellon Charles, 3 on 6th, Polbain, 3 on 6th, Ullapool, 2 on 6th.

Redwing *Turdus iliacus*. Achnahaird, 2 on 6th, Mellon Udrigle, 14 on 8th, Applecross Bay, 150 on 9th, Opinan (Gruinard Bay), 1 on 10th.

Mistle Thrush *Turdus viscivorus*

Date	5	6	7	8	9	10	11
Number	0	1	2	5	5	8	0

Highest counts: Mellon Udrigle, 3 on 8th, Loch Beag, 4 on 10th, Opinan (Gruinard Bay), 3 on 10th.

Goldcrest *Regulus regulus*. Second Coast, 2 on 8th, Slattadale Forest, 2 on 11th, Loch Kerry, 1 on 11th.

Long-tailed Tit (Bushtit) *Aegithalos caudatus*. Loch Lurgainn, 8 on 6th.

Coal Tit *Periparus ater*

Date	5	6	7	8	9	10	11
Number	0	3	6	3	1	7	7

Highest counts: Loch Shildaig (Torridon), 6 on 10th, Tongue House, 5 on 7th, Aultbea, 3 on 11th, Gruinard House, 3 on 8th.

Blue Tit *Cyanistes caeruleus*

Date	5	6	7	8	9	10	11
Number	0	32	10	3	6	6	10

Highest counts: Loch Duartmore, 11 on 6th, Scourie, 8 on 6th, Aird, 6 on 6th, Slattadale Forest, 6 on 11th.

Great Tit *Parus major*

Date	5	6	7	8	9	10	11
Number	0	12	11	16	13	7	7

Highest counts: Loch Buine Móire, 6 on 8th, Achintraid, 6 on 9th, Slattadale Forest, 6 on 11th.

Rook *Corvus frugilegus*. Ullapool, 3 on 6th, 24 on 9th, 19 on 11th, Syre Lodge, 75 on 8th.

Hooded Crow *Corvus cornix*

Date	5	6	7	8	9	10	11
Number	4	19	40	72	74	60	10

Highest counts: Kirkiboll, 33 on 8th, Shildaig (Gairloch), 49 on 9th, Gruinard Island Viewpoint, 30 on 10th.

Northern (Common) Raven *Corvus corax*

Date	5	6	7	8	9	10	11
Number	2	6	6	17	0	2	6

Highest counts: Loch Roe, 4 on 8th, Loch Hope, 3 on 8th.

Common Starling *Sturnus vulgaris*

Date	5	6	7	8	9	10	11
Number	0	7	237	265	65	50	6

Highest counts: Mellon Charles, 200 on 7th, Balnakeil, 80 on 8th, Applecross Bay, 65 on 9th.

House Sparrow *Passer domesticus*

Date	5	6	7	8	9	10	11
Number	0	15	19	16	10	12	22

Highest counts: Poolewe, 20 on 11th, Badcaul, 12 on 8th, Annat, 12 on 10th.

Common Chaffinch *Fringilla coelebs*

Date	5	6	7	8	9	10	11
Number	0	95	230	252	45	7	70

Highest counts: Poolewe, 185 on 7th, Kirkiboll, 80 on 8th, Achargary, 75 on 8th.

European Greenfinch *Carduelis chloris*

Date	5	6	7	8	9	10	11
Number	0	14	16	16	18	4	5

Highest counts: Aird, 12 on 6th, Poolewe, 15 on 7th, Achintraid, 18 on 9th.

European Goldfinch *Carduelis carduelis*. Durnamuck, 3 on 8th, Ullapool, 2 on 11th.

Eurasian Siskin *Carduelis spinus*. Badcaul, 2 on 8th, Gruinard House, 1 on 8th.

Twite *carduelis flavirostris*. Ullapool, 3 on 9th.

Eurasian (Common) Bullfinch *Pyrrhula pyrrhula*. Strathan: a group of 5 on 8th was considered to be of the northern race *P.p. pyrrhula*.

Snow Bunting *Plectrophenax nivalis*. South Erradale, 3 on 6th, Faraid Head, 1 on 9th.

Yellowhammer *Emberiza citrinella*. Rough Haugh, 10 on 8th. Reed Bunting *Emberiza schoeniclus*. South Erradale, 4 on 6th.

Appendix 2

Winter Duck IV - Gazetteer of Locations

Martin K Wightman

Achargary	NC 7354	Inchnadamph	NC 2521	Loch Ra	NC 0112
Achduart	NC 0503	Inveralligan	NG 8456	Loch Roe	NC 0624
Achgarve	NG 8893	Inverkirkaig	NC 0719	Loch Ruighean an Aitinn	NC 1232
Achiltibuie	NC 0208	Isle of Ewe	NG 8488	Loch Shieldaig (Gairloch)	NG 8072
Achintraid	NG 8338	Kenmore	NG 7557	Loch Shieldaig (Torridon)	NG 8055
Achmelvich	NC 0524	Kerrysdale	NG 8273	Loch Thurnaig	NG 8684
Achnahaird	NC 0113	Kinlochbervie	NC 2256	Loch Tollaidh	NG 8478
Aird	NG 7874	Kirkiboll	NC 5956	Loch Vatachan	NC 0110
Althandu	NB 9812	Kyle of Durness	NC 3864	Longa Island	NG 7377
Am Feur-Loch	NG 8572	Kyle of Tongue	NC 5656	Melangaun	NG 8189
Annat	NG 8954	Kylesku	NC 2333	Mellon Charles	NG 8491
Applecross Bay	NG 7045	Kylestrome	NC 2134	Mellon Udrigle	NG 8996
Ardcharnich	NH 1789	Laide	NG 9092	Melvaig	NG 7486
Ard-dhubh	NG 7040	Laxford Bay	NC 2247	Midtown	NG 8285
Arinacrinachd	NG 7458	Leacnasaide	NG 7972	Milton	NG 7043
Aultbea	NG 8789	Leathad Mor	NG 8786	Mungasdale	NG 9693
Aultgrishan	NG 7486	Leckmelm	NH 1691	Naast	NG 8283
Badachro	NG 7873	Little Loch Broom	NH 0393	North Erradale	NG 7481
Badcaul	NH 0291	Little Gruinard	NG 9490	Ob Mheallaidh	NG 8354
Badenscallie	NC 0305	Loch á Bhadaidh Daraich	NC 1644	Old Dornie	NB 9811
Badentarbat Bay	NC 0008	Loch a' Chàirn Bhàin	NC 2033	Oldshoremore	NC 2058
Badluarach	NG 9994	Loch a' Chracaich	NG 7657	Opinan (Gruinard Bay)	NG 8894
Badnaban	NC 0721	Loch á Mheallain	NB 9911	Opinan (Redpoint)	NG 7472
Balgy	NG 8454	Loch a' Mhuilinn	NG 7043	Ormiscraig	NG 8590
Balnakeil	NC 3968	Loch an Daimh Mór	NC 1543	Peterburn	NG 7483
Balnakeil Bay	NC 3869	Loch an Eisg-brachaidh	NC 0717	Polbain	NB 9909
Bay of Tongue	NC 5960	Lochan na Glamhaichd	NC 3459	Polglass	NC 0206
Big Sand	NG 7579	Lochan nam Breac	NC 8178	Poolewe	NG 8581
Blairbuie	NB 9713	Loch an Obain	NC 1640	Port Henderson	NG 7573
Boor	NG 8481	Lochan Sgeireach	NC 3056	Portvasgo	NC 5864
Borgie Forest	NC 6756	Loch Assynt	NC 2124	Raffin Lighthouse	NC 0032
Braemar Junction	NH 2077	Loch Bad a' Chròtha	NG 7872	Redpoint	NG 7369
Callakille	NG 6954	Loch Bad a' Ghaill	NC 0710	Reiff	NB 9614
Camas an Eilean	NG 7558	Loch Bad an Sgalaig	NG 8571	Rispond Bay	NC 4464
Camusnagaul	NH 0689	Loch Bad na h-Achlase	NG 7773	River Broom	NH 1885
Camusterrach	NG 7141	Loch Beag	NG 7856	River Kerry	NG 8173
Charlestown	NG 8074	Loch Borralie	NC 3867	River Kishorn	NG 8341
Clachtoll	NC 0327	Loch Broom	NH 1392	Rough Haugh	NC 7248
Clashnessie Bay	NC 0531	Loch Buine Móire	NC 0915	Rubha na Mòine	NG 9693
Cove	NG 8190	Loch Caladail	NC 3966	Rubha nan Sasan	NG 8192
Cùl a' Bhogha	NH 1098	Lochcarron	NG 8939	Rubha Thurnaig	NG 8684
Culduie	NG 7140	Loch Clash	NC 2156	Sand	NG 6848
Culkein	NC 0333	Loch Croispol	NC 3968	Sangobeg	NC 4266
Culkein Drumbeg	NC 1033	Loch Diabaig	NG 7960	Scourie Bay	NC 1445
Droman	NC 1859	Loch Diabaigas Airde	NG 8159	Second Coast	NG 9290
Druim Bad a' Ghaill	NC 0711	Loch Drumbeg	NC 1132	Shieldaig (Gairloch)	NG 8072
Duartbeg	NC 1639	Loch Duartmore	NC 1937	Shieldaig (Torridon)	NG 8153
Dundonnell	NH 0988	Loch Dùghaill	NG 9947	Skerricha	NC 2350
Durnamuck	NH 0192	Loch Eriboll	NC 4460	Slaggan Bay:	NG 8394
Durness	NC 4067	Loch Ewe	NG 8486	Slattadale Forest	NG 8871
Eilean Hoan	NC 4467	Loch Gairloch	NG 7776	South Erradale	NG 7471
Elphin	NC 2111	Loch Hope	NC 4654	Stoer	NC 0328
Fanagmore	NC 1749	Loch Inchard	NC 2454	Strathan	NC 0821
Faraid Head	NC 3871	Lochinver	NC 0922	Syre Lodge	NC 6944
Fearnmore	NG 7260	Loch Kanaid	NH 1198	Tarbet	NC 1648
Feur-loch	NC 1306	Loch Kerry	NG 8174	Tongue House	NC 5958
Firemore	NG 8288	Loch Kirkaig	NC 0719	Torridon	NG 8856
First Coast	NG 9291	Loch Kishorn	NG 8239	Toscaig	NG 7138
Foindle	NC 1948	Loch Lanlish	NC 3868	Tournaig	NG 8783
Gairloch	NG 7976	Loch Lurgainn	NC 1208	Traigh Bad na Baighe	NC 2247
Gruinard Bay	NG 9293	Loch Meadie	NC 4940	Udrigle	NG 8993
Gruinard House	NG 9692	Loch na Béiste	NG 8894	Ullapool	NH 1294
Gruinard Island	NG 9494	Loch Nedd	NC 1332	Upper Badcall	NC 1541
Gruinard Island Viewpoint	NG 9692	Loch Neil Bhain	NC 0430	Upper Diabaig	NG 8160
Horse Sound	NC 0304	Loch Osgaig	NC 0411	Upper Loch Torridon	NG 8656

Appendix 3

Winter Duck IV – Non-survey bird sightings of interest and other species

(All recorded in February 2005)

Martin K Wightman

Non-survey bird sightings of interest

White-tailed Eagle *Haliaeetus albicilla*. The group was told of a new site away from the usual Gruinard Island Viewpoint - its location has been withheld at the request of the RSPB/BTO. A juvenile was observed here on 11th.

Kumlien's Gull *Larus glaucooides kumlieni*. At 2 separate locations, a 2nd winter on 9th by Stan Christophers (SMC), Gerry Bilbao (GSB) and Jerry Knights (JK), and 2 days later, an adult at Loch Kerry fish farm outfall by SMC and observed by GSB, JK and JNW.

Parrot Crossbill *Loxia pyropsittacus*. During the journey north, the group stopped in the Caledonian pine forest near Grantown-on-Spey golf club to look for local specialties. SMC located a flock of 4 crossbills comprising a single **Parrot Crossbill** and 3 **Red (Common) Crossbills** *Loxia curvirostra*. The rest of the group confirmed the birds by call as they flew above the tree canopy.

Common Bullfinch *Pyrrhula pyrrhula pyrrhula*. On 8th, Steve Heather (SMJH) located 8 of this northern race (Cramp & Perrins 1994) near Strathan, the birds being filmed and also seen by Martin Wightman (MKW), Jim Bryden (JDB), and Terry Carne (TC).

Reference

Cramp, S. and C.M. Perrins. 1994. (Eds). *The Birds of the Western Palearctic Vol VIII*. OUP. Oxford. UK.

Bird species recorded en route to Winter Duck IV

Great Cormorant	<i>Phalacrocorax carbo</i>
Grey Heron	<i>Ardea cinerea</i>
Pink-footed Goose	<i>Anser brachyrhynchus</i>
Greylag Goose	<i>Anser anser</i>
Mallard	<i>Anas platyrhynchos</i>
Eurasian Sparrowhawk	<i>Accipiter nisus</i>
Common Buzzard	<i>Buteo buteo</i>
Common Kestrel	<i>Falco tinnunculus</i>
Red Grouse	<i>Lagopus lagopus scoticus</i>
Western Capercaillie	<i>Tetrao urogallus</i>
Common Pheasant	<i>Phasianus colchicus</i>
Northern Lapwing	<i>Vanellus vanellus</i>
Black-Headed Gull	<i>Larus ridibundus</i>
Common Gull	<i>Larus canus</i>
Herring Gull	<i>Larus argentatus</i>
Lesser Black-backed Gull	<i>Larus fuscus</i>
Great Black-backed Gull	<i>Larus marinus</i>
Woodpigeon	<i>Columba palumbus</i>

Eurasian Collared Dove	<i>Streptopelia decaocto</i>
Little Owl	<i>Athene noctua</i>
Short-Eared Owl	<i>Asio flammeus</i>
Pied Wagtail	<i>Motacilla alba yarrellii</i>
Bohemian Waxwing	<i>Bombycilla garrulus</i>
(Winter Wren)	<i>Troglodytes troglodytes</i>
European Robin	<i>Erithacus rubecula</i>
Common Blackbird	<i>Turdus merula</i>
Fieldfare	<i>Turdus pilaris</i>
Goldcrest	<i>Regulus egulus</i>
European Crested Tit	<i>Lophophanes cristatus</i>
Coal Tit	<i>Periparus ater</i>
Blue Tit	<i>Cyanistes caeruleus</i>
Great Tit	<i>Parus major</i>
Eurasian Magpie	<i>Pica pica</i>
Western Jackdaw	<i>Corvus monedula</i>
Rook	<i>Corvus frugilegus</i>
Carrion Crow	<i>Corvus corone</i>
Hooded Crow	<i>Corvus cornix</i>
Common Starling	<i>Sturnus vulgaris</i>
House Sparrow	<i>Passer domesticus</i>
Common Chaffinch	<i>Fringilla coelebs</i>
European Greenfinch	<i>Carduelis chloris</i>
Eurasian Siskin	<i>Carduelis spinus</i>
Lesser Redpoll	<i>Carduelis (flammea) cabaret</i>
Common Crossbill	<i>Loxia curvirostra</i>
Parrot Crossbill	<i>Loxia pyropsittacus</i>

Other Orders and species recorded on Winter Duck IV

Order Lagomorpha
European rabbit *Oryctolagus cuniculus*. Ullapool, 1 on 11th.
Order Mustelidae
European river otter *Lutra lutra*. Loch Kanaird, 1 on 6th, Loch Inchard, 1 on 7th, Upper Badcal, 2 on 7th, Milton, 1 on 9th, Gruinard Island Viewpoint, 1 on 10th.
Order Pinnipedia
Common (harbour) seal *Phoca vitulina*. Loch Kanaird, 1 on 6th, Loch an Obain, 1 on 7th, Loch a' Chàirn Bhàin, 1 on 8th.
Atlantic grey seal *Halichoerus grypus*. Ullapool, 2 on 6th, Old Dornie, 2 on 6th, Badnaban, 1 on 8th, Lochinver, 7 on 8th.
Order Artiodactyla
Red deer *Cervus elaphus*. Recorded daily.

Appendix 4

Winter Duck IV - Participants

Name	Origin or Status	Responsibilities
FS John Wells	RAF Wyton	Field Study Leader. Co-treasurer. Team 1 Leader. Driver Cottessmore PSI Van. Survey Coordinator. RAFOS Publicity Member.
Gp Capt Jerry Knights	RAF Wyton	Co-treasurer. Fieldwork leader. Team 1 MT. Driver Wyton PSI Van. RAFOS Chairman.
Mr Steve Heather	Civilian member	Co-treasurer. Food Coordinator. Team 2 Surveyor
Mr Martin Wightman	DPMT Bristol	Recorder. Team 2 Survey Coordinator
Mr Jim Bryden	Civilian member	Team 2 Leader & Driver. Accommodation Coordinator. Survey Coordinator.
Sqn Ldr Ian Drake	DLO Ensleigh Bath	Team 3 Leader. RAFOS FALO
Mr Gerry Bilbao	Civilian member	Team 1 Survey Coordinator
Mr Stan Christophers	Civilian member	Team 1 Surveyor. Scientific & Ornithological Advisor
Mr Terry Carne	Civilian member	Team 2 Surveyor
Miss Maggie Sheddan	Scottish Seabirds Civilian member	Team 3 Surveyor
SAC Kevin Cairns	RAF Lossiemouth	Team 3 (Private Car) Surveyor
Mr Tom Dewick	Bird Control Unit RAF Lossiemouth. Civilian member	Team 3 Surveyor

Appendix 5

Winter Duck IV - Travel and accommodation

Travel

The team travelled independently of Service financial support. Hiring the 2 PSI Minibuses aided the expedition immensely and kept the operating costs to a minimum. Team 1 remained at Royal Naval Establishment (RNE) Aultbea for the duration of the survey and ensured security and safety of the 4 caravans and base accommodation. On Sunday morning, 6 Feb 05, Teams 2 and 3 moved to deployment accommodation in Elphin village and at Cape Wrath respectively, taking provisions for self-catered meals. The Elphin Team stayed at the Knockan Crag guest-house. Team 3 stayed at the Range Hut at Faraid Head, where bunk accommodation had been booked through Flag Officer Scotland and Northern Ireland (FOSNI). SAC Kevin Cairns used his private 4 x 4 vehicle to transport Team 3 to their survey areas.

Support Logistics

Minibuses. The PSI minibuses from RAF Cottesmore and RAF Wyton/Brampton were used for the survey. A reduced hire agreement was arranged with Wyton/Brampton.

Fuel. All vehicle fuel costs were paid from the RAFOS field study private bank account.

Accommodation - Main Base. The group was based at RNE Aultbea, Mellon Charles, Wester Ross (OS 1:50,000 Landranger Sheet 19 Gairloch & Ullapool NG 845 912) Aultbea being administered on behalf of the Captain, HMS Neptune by the Staff Officer Administration (SOA), HM Naval Base Clyde. RNE Aultbea is the former HM Boom Defence Depot, Loch Ewe. Prevailing Health and

Safety restrictions placed the shower block and toilets out of use. Accommodation took the form of 4 on-site caravans (3 for male, 1 for female occupancy), which although adequate for summer visitors proved less so for the 3 teams in February. During the week, the gales and storms experienced tested the teams' durability in cold conditions as heavy rain penetrated the caravans through the vents! The living quarters were moved from the old wardroom to the games room, which was in a 'basic' but warm and dry hut. The catering 'galley' facility is of a modern prefabricated cabin type design with integral propane ovens and electric fridges and the sinks and work tops were fitted in stainless steel; it was ideal for a group of 12.

Accommodation - Dispersed Teams 2 and 3.

Elphin - Knockan Crag. This facility was chosen as being centrally located for Team 2 survey area, the proprietor offering a very reasonable rate for 4 team members for 2 nights' accommodation; with self-catering, all in for £100. Team 2 highly recommend this self catering guest-house! (Grid Reference NC 212 113)

Faraid Head - Range Hut near Cape Wrath. The Team 3 living quarters at Faraid Range Hut were arranged by kind permission of the warden John Ure and HMNB Clyde, through FOSNI Cdr Bill Jones. This site was used to survey the northern sea lochs and additional areas in the Cape Wrath vicinity. Coastal lochs to the east had last been covered on the RAFOS visit in 2001. The bunk accommodation and catering facilities are more than adequate and are perfectly suited to our work.

MOD Bird Count

A note from Lt Col Roger Dickey

Changes were made to the MOD Bird Count in 2005, with 2 objectives in mind:

- First, to ensure that data collected from across the Defence Estate (DE) met the requirements of DE Environmental Support Team (EST) in providing governmentally mandated information to support Sites of Special Scientific Interest (SSSI), Biodiversity Action Plans (BAP) and Species of Conservation Concern (SOCC). Regrettably this has not always been possible in the past with the result that DE EST has been presented with too much or too little data, an unnecessary percentage of which cannot be used.
- Second, to begin the process of relating Defence acquired data with that of the national collation agency, the British Trust for Ornithology (BTO). The lack of a common methodology has frustratingly left Conservation Groups and DE EST with data that although sound, has little utility in contributing to the national ornithological picture.

In early November 2004, DE EST and AOS (in consultation with RAFOS and RNBWS) devised a simple database to meet the above requirements and which will allow subsequent detailed analysis. Such was the utility of the database that it was decided that 2004 data, previously held in Word tables, would be re-entered to match 2005's information. The intent is to be able to analyse the combined data in time for a report early in 2006.

The 2005 report sheet provoked considerable useful comment.

With the pilot trials taking place this winter and spring on the new combined Breeding and Wintering Bird Atlas, as the AOS Survey Member, I have had detailed discussions with BTO as to the 'new' data collection methodology so that the Bird Count can contribute directly to that mammoth project and that subsequent report sheets meet the BTO's exacting standards. Regrettably we shall have to wait another year until BTO go firm but in the interim, further changes will be made to the record sheet to increase its utility.

Much is dependent on the results from the 2005 count but the list will change from Voous (1977) to alphabetical, and possibly from Breeding Bird to EURING (thereby increasing the range). Selecting 1km squares in typical habitat is workable for smaller sites but larger training areas need the more typical 2 x 2 km tetrad to better ensure a more representative selection of species. Habitat reporting has been particularly useful and is here to stay and there are many other smaller tweaks to make the report more user-friendly. Once a common methodology is agreed, I will be running one or two short courses to assist transition and newcomers.

In the interim, it is always a pleasure to hear how individuals tackle their own 'patch' and hear of ideas and problems. Although DE EST sign off the Bird Report and the Societies and Conservation Groups work on their behalf, comments and queries on bird surveys should be directed to me.

Troubled Times for the Eurasian Griffon Vulture *Gyps fulvus* in Cyprus

LCpl Jason Wilson - WSBA Conservation Officer

Introduction

A female **Eurasian Griffon Vulture** *Gyps fulvus* (photo in central section, Cyprus) takes 4-5 years to mature and then only lays a single egg in her nest. The species is in steady decline in easternmost Europe and particularly in Turkey (by 50-75% between 1990 and 2000), but is increasing slightly in Romania and Bulgaria and in a large way in France and Spain, largely as a result of successful conservation policies (Burfield and van Bommel 2004). Unfortunately, **Griffon Vultures** could become extinct in Cyprus as a direct result of two key factors;

1. Accidental poisoning by local people targeting foxes and stray dogs in an effort to protect young goats.
2. Disturbance of nesting areas and habitat due to a growth in tourism and improvements to local infrastructure such as roads and pathways.

Recent Data

This information has been provided in cooperation between the Western Sovereign Base Area (WSBA) Safety, Health and Environmental Department, the Republic of Cyprus (RoC) Forestry Department and BirdLife Cyprus.

2003

Following a poisoning incident in March 2003, the adult vulture population for the Episkopi area was down to only 6 adults and 2 nests recorded (both chicks successfully left their nests in late July).

- Two nests were built at Hanoutaris Cliffs (Paphos Forest). From one, the chick died following a poisoning incident. The other nest was abandoned by the adult (no egg laid).
- **Griffon Vultures** being cared for in the rehabilitation cage at the Ayios Ioannis Cliff Sanctuary built a nest, but abandoned the egg three days before hatching was due, following an incident involving people on horses.
- The **Griffon Vultures** at Limassol Zoo laid one egg during 2003. It was removed by officers from the RoC Forestry Department and hatched in an incubator. The chick was reared by Mr Haris Nicolaou before being reunited with its parents at the zoo (photo in central section).

2004

A poisoning incident in February resulted in 3 **Griffon Vultures** and 2 **Bonelli's Eagles** *Aquila [Hieraaetus] fasciatus* being found dead by the RoC Forestry Department.

- Two nests were abandoned by adult **Griffon Vultures** in Paphos Forest (near Arminou and Hanoutarides).
- A nest was built in the rehabilitation cage at the Ayios Ioannis Cliff Sanctuary, but the chick died shortly after hatching.
- The vultures at Limassol Zoo laid an egg that broke before hatching.

2005

The **Griffon Vulture** colony at Episkopi started off well with activity at five nests, but no eggs were laid. A possible explanation is that



Eurasian Griffon Vulture *Gyps fulvus* chick newly-hatched at Limassol Zoo, 2004. © Haris Nicolaou.

vultures, being colonial, support each other and so if the majority choose not to nest, then those that have started may abandon their nests to be with the rest of the flock.

- No hatchlings have been recorded in Cyprus for 2005. The current **Griffon Vulture** population in Cyprus is estimated at fifteen free flying birds.

Current Situation

BirdLife Cyprus have raised their concerns to the RoC authorities about the urgency of the situation and requested that a long-term strategy be adopted immediately to ensure the protection of **Griffon Vultures** in Cyprus from a serious threat of extinction in the country.

As directed by the RoC Minister of the Interior, a Technical Committee has been formed including representatives from the RoC Game Fund and the RoC Forestry and Veterinary Departments, the Environment Service, the Cyprus Herders Union, the Conservation Department, HQ SBAA and BirdLife Cyprus. At a recent meeting it was agreed to formulate a national action plan for the recovery of the **Griffon Vulture**. The next step is for the proposal to be sent to the Council of Ministers for discussion, which is expected to take place before Christmas 2006.

Reference

Burfield, I. and F. van Bommel. 2004. (Compilers). *Birds in Europe: population estimates, trends and conservation status*. BirdLife Conservation Series No 12. BirdLife International. Cambridge. UK

The 2005 Demoiselle Crane *Anthropoides virgo* Survey at Akrotiri Salt Lake Cyprus

LCpl Jason Wilson - WSBA Conservation Officer

Introduction

During August and September, the Akrotiri Salt Lake (ASL) in Cyprus is one of the best locations in Europe to view the **Demoiselle Crane** *Anthropoides virgo* on migration, as it travels south to its wintering grounds in the Sudan (Serebryakov 1997). They breed in Russia, where the core population of around 20,000 pairs is increasing, Ukraine (>200 pairs, stable) and Turkey (>10 pairs, declining). Overall, the species is assessed as secure (Burfield & van Bommel 2004). The **Demoiselle Cranes** that use Cyprus as a flyway and staging post are believed to be from the Ukrainian and Turkish populations, and on the outward migration, we recorded 285 birds, 19 being juveniles. These flocks usually cross Cyprus during the evening or at night, a large percentage landing to roost on Akrotiri Salt Lake. The next morning, when thermals have developed, the cranes take off, gain height and fly southwards over RAF Akrotiri Cyprus, (See Figs 1 - 7). The Western Sovereign Base Area Conservation Officer conducted a survey to record the Demoiselle Cranes that pass through the area. The purpose of the survey was not to record flocks arriving, but to obtain an accurate count of the numbers of adults and juveniles and to note in which direction and at what time they departed the following day.

Location

The Akrotiri Peninsula forms the southernmost part of Cyprus, extending over a total area of around 70km². Its centre is occupied by the natural depression of the ASL, some 10 km² in area, which is surrounded by saltmarshes. Also in the Peninsula's area are the freshwater habitats of the Phasouri Reedbeds northwest of the ASL salt lake and the forest of Eucalyptus sp trees along its northern edge. The coastline of the Peninsula comprises flat areas to the east and west with an elevated plateau to the south, ending in steep sea-cliffs at Cape Gata in the east and Cape Zevgari in the west. The eastern Peninsula littoral includes sand flats and coastal lagoons, while the western littoral shows signs of having been quarried extensively.

Survey Methodology

From previous experience of Demoiselle Crane movements through the Akrotiri Peninsula, it was decided that the survey period would be from the middle of August to the end of the first week in September. So, from 15 August to 10 September 2005, there was daily monitoring of the ASL from 1800hrs until one hour after dark. This was achieved by carrying out spot-checks of the ASL every thirty minutes. From 27 August to 11 September 2005, the ASL was also monitored from 0730 to 0930hrs, or until after the cranes had left the area.

Two vantage points were used for the surveys, mornings and evenings. The car park at Sylvanas' Restaurant was used during the evening when there was still sufficient light to see relatively long distances. The car park, being at a relatively high elevation, provided an excellent field of view. When it started to get dark and visibility was deteriorating, then an area on the southern edge of the ASL near to two tamarisk bushes at Grid Reference 976 291 was used; due to the area's close proximity to the ASL, even if the cranes could not be seen, they could be heard coming in to land. **Fig 1** shows these locations on the Akrotiri Peninsula, the map being derived (with permission of DGLA (UK)) from the GSGS 5801 1:10 000 series.

Evening observations recorded: time, location of roosting cranes and their numbers (if any seen before dark). Morning observations

recorded: location (if different), numbers, time of take-off, direction of flight (course) and any other information deemed important. Photographs were also taken of each flock so that an accurate count could be made. The weather mostly was dry and calm. Details are at **Appendix 1**.

Results

Ten flocks were recorded roosting at the ASL, and six flocks were recorded departing from there (**Figs 2 to 7**). A total of 285 **Demoiselle Cranes** was recorded, which included 19 juveniles.

Discussion

From 15 August to 10 September 2005, 27 evening surveys and 15 morning surveys were undertaken at the ASL. During the summer, the ASL usually dries up, but for the past two years there has been water present. During the survey period, the ASL had water at its centre, which left a 200m-wide margin of sand flats around it. All **Demoiselle Crane** flocks were noted as using these sand flats, never being observed standing in water. That there were only 19 juveniles indicates that the adults observed had had a poor breeding season, because juvenile cranes migrate with their parents. The majority of cranes were recorded departing the ASL between 0900 and 1000hrs. However, the flock that left at 1040hrs on 1 September was probably waiting either for the temperature to rise or for the wind to ease a little. The wind had become stronger gradually since dawn, and when the birds departed, they were carried east because they were unable at first to head directly south. The flock that left on 2 September was also carried east by the wind.

On 28 and 30 August, at least two flocks arrived during the night, but merged to roost together. However on the morning of 2 September, there was more than one flock on the ASL, which suggests that they had landed at different times, and that the first flock had not called in response. On occasions such as this, the first flock to take off would be joined by the others to form one large flock, but only after the first flock had found a worthwhile thermal.

When the cranes were due to depart they would become restless. This entailed wing beating, stretching and jumping. They would then spread out and form an extended line in an east to west direction, facing south. There were two techniques used when they departed. The first, when there was hardly any wind, involved a short run before taking off to head south low over the ground, gaining height gradually. They would flap their wings for a period, then glide, then flap again, until at about 50m to 100m altitude, they would start to thermal. The second technique was used in stronger winds, when as soon as they took off, they began to thermal straight away to gain height. In both cases as soon as they took off they would start to call. When they got to the required altitude (about 500m) they would then form up in a large 'V' formation and head south to southwest.

It also appeared that when the flocks took off they would avoid Akrotiri village. This was the case on 30 Aug when a family group first headed south until they got near the village when they turned southeast, flying parallel to the main road. After about a kilometre, they then turned again on to a southerly heading, having avoided the village. On a second occasion, on the morning of 31 Aug, a flock came from the west, but arrived at the ASL by flying around Akrotiri village instead of flying over it.



A flock of 24 **Demoiselle Cranes** *Anthropoides virgo* (all adults) taking off from Akrotiri Salt Lake, Cyprus, Aug 2005. © Jason Wilson.

The Effect of Aircraft

We recorded only one instance of the cranes being disturbed at the ASL. The flocks that departed on 2 September were 'spooked' by aircraft noise from RAF Akrotiri, although there had been flying at RAF Akrotiri all week without any observable effect on the cranes. When crane flocks (or flocks of other large birds such as vultures and raptors) depart, they tend to head directly southwards, when they fly over or near the Akrotiri runway, which creates a risk of bird strikes on aircraft in flight. At times when cranes were on the ASL, the WSBA Conservation Officer had a direct link to the Air Traffic Control Tower to keep the controllers informed of crane activity, particularly when birds were approaching or departing the line of the runway.

Recommendations

- There should be continued annual monitoring of the migrant **Demoiselle Cranes** that use Cyprus to build and maintain a clear picture of their migration pattern.

- There should be regular monitoring of the cranes and other large migrant species as a prudent precaution in reducing the chances of bird strikes on aircraft and as a low-tech way of keeping air traffic controllers informed of bird activity during the migration periods.

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Appendix 1. Weather during the **Demoiselle Crane** *Anthropoides virgo* survey at Akrotiri Salt Lake in autumn 2005.

Appendix I

Weather during the Demoiselle Crane *Anthropoides virgo* survey at Akrotiri Salt Lake in autumn 2005

The weather summary was kindly supplied at the time by the Meteorological Office at RAF Akrotiri.

Sunday 28 August 2005

Dry and sunny with patchy cloud cover. Overnight it had been dry with generally clear skies, though patchy cloud and some mist affected coastal areas at times. Wind, light at first, increasing by the afternoon to become moderate west to southwesterly, with gusts of 19 knots, before easing again overnight. Max temperature 30°C and min of 25°C.

Monday 29 August 2005

By day, fine and dry with plenty of sunshine, with only small amounts of cloud over the mountains. Overnight had been dry and mostly clear with some patchy cloud and mist affecting the coast at times. West to southwesterly winds, light at first, increased to moderate to fresh, locally strong by afternoon with gusts of 21 knots, then easing slowly overnight to become light. Max temperature 29°C and min of 23°C.

Tuesday 30 August 2005

A fine and dry day with plenty of sunshine. Overnight had been dry and largely clear, though once again some patchy low cloud and mist affected coastal areas at times. Winds started light from the west or southwest, increased by afternoon to become moderate to fresh, being strong near too exposed headlands on the south coast with gusts of 29 knots. Winds eased through the evening to become mostly light. Max temperature 30°C and min of 23°C.

Wednesday 31 August 2005

Some early coastal mist patches that occasionally turned hazy. However, all parts stayed dry with plenty of sunshine, cloud being limited to the mountains from mid-morning onwards. Winds were light to moderate mainly from the east through the morning, but turned to the west later. Dry and mostly clear overnight, with some mist returning to the coasts.

Thursday 1 September 2005

Mostly a fine and dry day, with just a little patchy cloud over the mountains and the odd patch around the coast overnight. Winds started light from the west or southwest and increased by early morning to become moderate to fresh, with gusts of 20 knots. Max temperature of 32°C and min of 23°C.

Friday 2 September 2005

Dry with sunny periods, with more cloud around than previously, which gave isolated showers over the mountains. Overnight was mostly dry and clear, though some cloud remained to the north. Winds were mainly west to southwesterly, light to moderate at first, increasing to fresh and locally strong by afternoon with gusts of 22 knots. Max temperature of 31°C and min of 22°C.

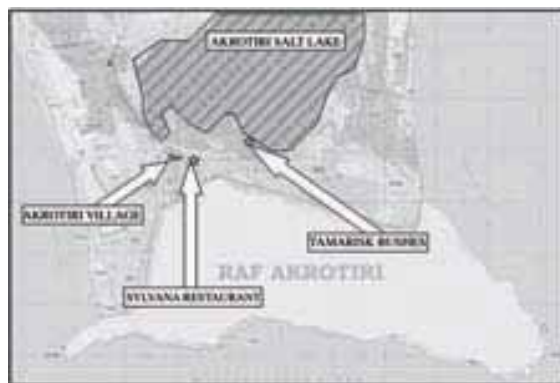


Figure 1. Map of the Akrotiri Peninsula showing the location of the **Demoiselle Crane** *Anthropoides virgo* survey sites. With the permission of DGLA (UK), Crown Copyright.



Figure 2. Sun 28 Aug 05. 131 **Demoiselle Cranes** *Anthropoides virgo* (1 juvenile) took off at 0920hrs, thermalled 8 times then headed southwest. With the permission of DGLA (UK), Crown Copyright.

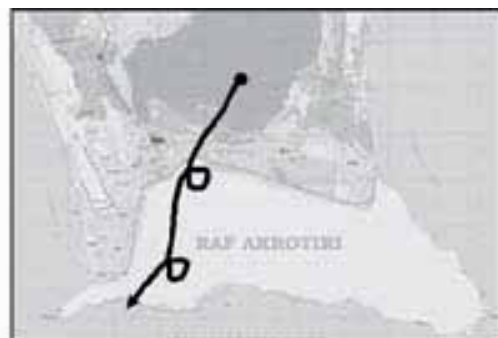


Figure 3. Mon 29 Aug 05. The 8 **Demoiselle Cranes** *Anthropoides virgo* on the ASL at 1830hrs the night before were joined by another 55 during the night. The flock of 63 (6 juveniles) took off at 0900hrs, thermalled 10 times, then glided and thermalled 5 times more, heading southwest. With the permission of DGLA (UK), Crown Copyright.



Figure 4. Tue 30 Aug 05. Four **Demoiselle Cranes** *Anthropoides virgo* (2 juveniles) took off at 0940hrs, glided towards Akrotiri Village and then passed east of the Main Gate of RAF Akrotiri, before heading south towards the cliffs and thermalled 8 times to disappear to the southwest. With the permission of DGLA (UK), Crown Copyright.



Figure 5. Wed 31 Aug 05. The 10 **Demoiselle Cranes** *Anthropoides virgo* on the ASL at 1945hrs the night before (at 'A'), were joined by another 27 during the night. The flock of 37 (at 'A') (4 juveniles) took off at 0935hrs, but were joined by another 10 (from 'B') (1 juvenile) that had come from the west. The combined flock thermalled 6 times before heading southwest. With the permission of DGLA (UK), Crown Copyright.



Figure 6. Thu 1 Sep 05. Nine **Demoiselle Cranes** *Anthropoides virgo* (2 juveniles) took off at 1040hrs, but were blown east as they thermalled 9 times, before managing to head south. With the permission of DGLA (UK), Crown Copyright.



Figure 7. Fri 2 Sep 05. Two flocks of **Demoiselle Cranes** *Anthropoides virgo*, one of 23 (at 'A'), the other of 8 (at 'B'), (4 juveniles altogether) took off at 0910hrs and joined up as a single flock, being blown east as they thermalled 6 times before heading south. With the permission of DGLA (UK), Crown Copyright.

Re-trapping Adult Sooty Terns *Sterna fuscata* on Ascension Island

John Hughes and Colin Wearn

Introduction

Ringling birds and then re-trapping them provide vital information for calculating their survival rate. The Army Ornithological Society (AOS) and the Royal Air Force Ornithological Society (RAFOS) started a ringing programme on Ascension Island in 1996; to date, some 6000 **Sooty Terns** *Sterna fuscata* have been ringed. Our **Sooty Tern** re-trapping programme commenced in earnest in April 2003 and since then we have re-trapped some 400. From the information we have gathered, we have been able to establish a measure of the life-span (longevity) of the Ascension **Sooty Tern**, its age of first breeding and that immigration occurs. Whether the last-named is accidental or regular we may be able to discover from future visits.

Longevity

On 25 June 2002, we captured, using a hand net, a ringed **Sooty Tern** which was incubating an egg on Waterside Fair. The American ring had the number 1013 13651. The following season, on 22 April 2003, we captured another **Sooty Tern** with an American ring, the number being 1013 13584, we thought, because corrosion on the ring made reading the last three digits difficult in the field! This bird had been incubating an egg on our Mars Bay study site. In both cases, we returned the birds to their nests where they carried on incubating. Because the ring was so degraded, the bird was re-ringed with a British Trust for Ornithology (BTO) ring. In 2005 the original ring was examined in a laboratory and the number confirmed as 1013 13584. On our behalf, the Bird Banding Laboratory at Patuxent was contacted. Their records revealed that Dr N. B. Gale had ringed 200 **Sooty Tern** pulli on Ascension in early November 1975 with this banding sequence. This made the first Sooty Tern 26½ years old and the second 27½.

Terns are long-lived birds, the oldest tern recorded being a **Sooty Tern** aged 36 (Schreiber & Burger 2002). The oldest known breeder on the Seychelles was 34, in the Dry Tortugas 32 and in the Pacific 26½ (Schreiber *et al* 2002). Previously, the oldest **Sooty Terns** on Ascension were 16½ (on 7 July 1942) and 18 (March 1944) (both records from Thacher Cooke 1945). Our ringing recoveries suggest that, despite the long-established feral cat predation on Ascension, **Sooty Terns** in the South Atlantic can live as long as others from Caribbean Sea and the Pacific and Indian Oceans.

Age of First Breeding

During the June 1998 breeding season we ringed 300 pulli (chicks), three of which were re-trapped as adults incubating eggs on their natal site in February 2004. Although our ringing effort in the following season, November 2004, was similar to that in February we did not re-trap any more Sooty Terns from the 1998 cohort. The Sooty Terns we had re-trapped returned to breed seven seasons (5½ years) after fledging. Elsewhere in the range the age of first breeding for most Sooty Terns is 6-8 years (Schreiber *et al* 2002).

Immigration

We obtained the first evidence that immigration to the Ascension colony does occur on 24 April 2003 when we re-trapped a Sooty Tern wearing a Brazilian ring numbered H25617. The bird was netted while incubating an egg at Mars Bay. It took two years to obtain details of where the bird was originally ringed. In July 2005 we obtained a certificate from the Brazilian ringing authority CEMAVE that the bird we had re-trapped was ringed as a pullus at Atol das Rocas, 03°50'S, 33°40'W, which lies 266km northeast of the city of Natal, NE Brazil, and is some 1500km west of Ascension.

Our re-trap programme on Ascension is similar to the Re-trapping Adults for Survival (RAS) project set up by the BTO in the UK in 1998 in that we collect survival data on a particular species from one main study site, but it differs in that it would be impractical to capture all 150,000 breeding pairs of **Sooty Tern** on Ascension! Whilst RAS ringers in the UK collect data annually, on Ascension the collection has to fit in with the Sooty Tern's 9.6-month breeding cycle. The AOS has plans to continue with the re-trapping programme until sufficient data are collected to establish the survival rate for Ascension **Sooty Terns**.

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Ascension Sooty Tern retrap © C Wearn

Photograph Section



Yellow-legged Gull *Larus michahellis*, Gibraltar Mar 2005. © Mike Blair.



Firecrest *Regulus ignicapilla*, Gibraltar Mar 2005. © Mike Blair.



Black Redstart *Phoenicurus ochruros*, Gibraltar Mar 2005. © Mike Blair.



Redwing *Turdus iliacus*, Gibraltar Mar 2005. © Mike Blair.



The nearest Simon Dennis could get to a **Barbary Partridge** *Alectoris barbara*, courtesy of an unknown taxidermist, Gibraltar Mar 2005. © Mike Blair.



Eurasian Hoopoe *Upupa epops*, Gibraltar Mar 2005. © Mike Blair.



Subalpine Warbler *Sylvia cantillans*, Gibraltar Mar 2005. © Mike Blair.



Probable dark-morph (very dark secondaries, broad, arrowed breast streaking) juvenile (?) (fledged the year before) **Eleonora's Falcon** *Falco eleonora*. © Jason Wilson, Cyprus, September 2005.



Probable light-morph (light secondaries, relatively narrow breast streaking) juvenile (fledged the year before) **Eleonora's Falcon** *Falco eleonora*. © Jason Wilson, Cyprus, September 2005.



Eurasian Griffon Vulture *Gyps fulvus* chick newly-hatched at Limassol Zoo, 2004. © Haris Nicolaou.



Adult **Eurasian Griffon Vulture** *Gyps fulvus* at Kensington Cliffs, Episkopi, 2004. © Jason Wilson.



A flock of 24 **Demoiselle Cranes** *Anthropoides virgo* (all adults) taking off from Akrotiri Salt Lake, Cyprus, Aug 2005. © Jason Wilson.



A family of two adult and two juvenile **Demoiselle Cranes** *Anthropoides virgo* taking off from Akrotiri Salt Lake, Cyprus, 30 Aug 2005. © Jason Wilson.



Wattle Ibis *Bostrychia carunculata*, Bale MNP January 2005. © Lieuwe Dijkse.



Winter Duck IV; Teamwork. © Ian Drake



Sooty Tern *Sterna fuscata* and chicks on Ascension Island, Oct 05. © Richard Sargent.



Common Tern *Sterna hirundo*, Brodowiner See, Brandenburg May 05. © David Thomas.



Typical habitat on the Chorin Reserve. Brandenburg May 05. © David Thomas.



Common Crane *Grus grus* on nest (from public road), Brandenburg May 05. © Mike Blair.



Uncommon heathland and lake habitat, Kleine Schorfheide, Brandenburg May 05. © Peter Evans.



Common Crane *Grus grus* pair foraging, Brandenburg May 05. © Mike Blair.



Red-backed Shrike *Lanius collurio*, Brandenburg May 05. © Mike Blair.



Torpid **Barn Swallow** *Hirundo rustica*, Brandenburg May 05. © Mike Blair.



Common Redstart *Phoenicurus phoenicurus*, Brandenburg May 05. © Mike Blair.



Icterine Warbler *Hippolais icterina*, Brandenburg May 05. © Mike Blair.



BrandEx05 accommodation at Stegelitz, Die Alte Schule, Brandenburg May 05. © David Thomas.



Great Grey Shrike *Lanius excubitor*, Brandenburg May 05. © David Thomas.



White-tailed Eagle *Haliaeetus albicilla* Brandenburg May 05. © David Thomas.



Western Marsh Harrier *Circus aeruginosus* Brandenburg May 05. © David Thomas.

Bird Gallery



Yellow-bellied Sapsucker *Sphyrapicus varius*, Cold Lake, Canada, 27 May 05. © Tim Cowley.



Pied Triller *Lalage nigra*, Singapore 1965. © Dave Greasley.



Western Capercaillie *Tetrao urogallus*, Vrådal Telemark, Norway, Apr 05. © Dave Greasley.



Red-footed Falcon *Falco vespertinus*, juvenile, Akrotiri, Cyprus, Sep 05. © Jason Wilson.

The 2005 Survey of Eleonora's Falcon Breeding Sites in Cyprus

By LCpl Jason Wilson - WSBA Conservation Officer

Introduction

Since 2002, the Western Sovereign Base Areas (WSBA) Conservation Group has been organising and hosting the survey of **Eleonora's Falcon** *Falco eleonora* breeding sites in Cyprus. Representatives from BirdLife Cyprus, Republic of Cyprus (RoC) Game Fund and the RoC Forestry Department are invited to help conduct the survey. The survey team consisted of Mr Michael Miltiadou (Birdlife Cyprus), Mr Panikos Panayides (RoC Game Fund), Mr Haris Nicolaou (RoC Forestry Dept), LCpl Jason Wilson AIEMA (WSBA Conservation Officer) and C/T Andy Pickard (Deputy WSBA Conservation Officer). The 2005 survey was carried out on 13 September 2005.

Location

The survey area is the southern coast of Cyprus from the cliffs west of Cape Aspro (east of Petra tou Romiou) to the Lighthouse on Cape Gata at RAF Akrotiri. Eleven sites are covered, eight of them being located on the Western Sovereign Base Area and three in the RoC. Ten of these sites are tall cliffs that overlook the sea, while Zapallo Fishing Station, which was formerly a quarry, is now a harbour for small local fishing boats, on a small strip of land between the cliffs and the sea. The cliffs are made up predominately of limestone and calcareous sandstones. The cliffs have many pot-holes, caves, large cracks and ledges; these were formed by physical and chemical weathering, sandblasting and continuous sea breezes. Wind erosion also forms cavities in the porous bedrock.

Survey Methodology

Eleonora's Falcon, with around 6000 breeding pairs in total, mostly around the Mediterranean (Burfield & van Bommel 2004), is a specialised raptor that winters mainly in Madagascar. It nests late in the season to coincide with the autumn migration of small passerines, which form the main diet for the chicks. This is why the survey dates fall some time during the first two weeks of September when adult falcons will still be feeding chicks on the nests, which in theory should help the team identify and record nests. Nest sites can also be detected by the presence of guano staining on the cliffs. Because the falcons nest on ledges and in holes on the sea-cliffs, the best way to conduct the survey is from the sea. 417 Maritime Troop kindly renders logistical support in the shape of the vessel *Sir William Roe*. Due to limited space on the vessel, the team is restricted to six persons, who are representatives of the organisations described above.

General survey procedure

The Eleonora's Falcon survey follows a standard routine:

- The survey team receive a safety brief from the skipper of the *Sir William Roe*.
- The survey team is split into two groups, with one or two people allocated to record the data.
- The vessel makes its way west to the first location, close to Cape Aspro Cliffs, by means of the GPS coordinates provided.
- On arrival at the first location, the vessel approaches the cliffs reasonably closely to the cliffs, as far as general safety and water depth permits. The vessel makes its way East at slow speed. Each location is identified from its GPS coordinates.
- Using binoculars, the two teams will independently start counting falcons present on the cliffs (Movement of the boat renders the use of telescopes impossible at the magnification required). The teams will also identify possible nest sites, represented either by adults near to a crevice, ledge or pothole, or by the presence of guano on the cliff below the likely sites, an indication of probable long-term usage.
- After each section of the survey has been completed, the two teams

will compare their figures of falcons counted, either present on the cliffs or flying. They will also identify and record possible nest sites. Comparison of the results obtained allows the quality of the results to be monitored - wide differences would be a cause for concern. The teams also identify and record any other relevant information, such as unusual behaviour by any individual falcon.

Weather

13 Sep 05 was fine and dry, with patchy cloud developing over the mountains. Winds started light, chiefly east to southeasterly by afternoon, then becoming light to moderate. The maximum day temperature was 30°C. This information was kindly provided by the Meteorological Office at RAF Akrotiri.

Results

On the day of the survey, a total of 236 Eleonora's Falcons was recorded by the team, the main concentrations being located at Cape Aspro and Kourion Cliffs, representing the falcons present on or near the sea-cliffs, either resting or flying. A possible 104 nests were also identified (**Table 1**). The majority of nests were clearly visible, usually by noting an adult present near or on a nest, but chicks, between one and two weeks old, were also seen at four nests. 2005 saw the first counts made of dark and light morphs; 52 were dark morphs and 184 were light. From the figures recorded the team are pleased to announce that the population remains stable. Other bird species of interest recorded during the survey are listed at **Appendix 1**.

Discussion

The survey started at 0730hrs and was completed by 1300hrs. Visibility on the day was excellent. The sun was behind us for the duration of the survey. The sea was calm and like glass with a slight breeze. Of the eleven sites visited 236 Eleonora's Falcons were recorded; with 52 dark and 184 light morphs. Dark birds represented 22% of the population in Cyprus for 2005. The survey team had great difficulty recording these birds because some were perched on the cliffs with their backs to us. When they are perched like this they will appear to be the dark birds, unless you get close enough to see their white cheeks or they turn their heads. When they are perched in the shade they also appear as dark birds.

There was also a possible 104 nests identified. Four nests had the presence of chicks that were between one and two weeks old; three of the nests had 2 chicks and the other nest had 3 chicks. The nests recorded on this year's survey were the lowest recorded for the past four years. The cliffs at Cape Aspro only recorded 21 nests with a possible 2 compared to 73 nests for the 2004 survey. The area of Akrotiri East of TPMH to Radar Station recorded 9 nests with a possible 1 compared to 0 nests for the 2004 survey. It appears that the falcons are moving from their traditional areas and colonising new areas.

Most of the areas can only be accessed from the sea. On the day of the survey at least three of the locations had boats moored near to the cliffs with people sunbathing on rocks below the cliffs or actually on the small areas of beach. Birds of Prey are easily disturbed and then desert their nests so this could be why they are colonising new areas that are not so accessible to bathers.

Conclusions

It was decided that for future surveys the two locations known as Zapallo Fishing Station and Quarry Cliffs will be combined and called Zapallo Fishing Station. When looking at this area from the sea it is one continuous concave cliff face with a spur either side.

Recommendations

Oblique photographs taken of the different locations would be advantageous for future survey teams to identify the various locations.

Acknowledgements

On behalf of the survey team thanks once again to 417 Maritime Troop, Cyprus Service Support Unit, based at RAF Akrotiri for providing us with the resources to be able to conduct the survey and special thanks to the crew of the Sir William Roe.

Reference

Burfield, I. and F. van Bommel. 2004. (Compilers). *Birds in Europe: population estimates, trends and conservation status*. BirdLife Conservation Series No 12. BirdLife International. Cambridge, UK

Appendix I

Observations of other bird species

A number of other bird species were observed on 13 Sep 05 during the survey of **Eleonora's Falcon** *Falco eleonora*:

European Shag *Phalacrocorax aristotelis*. 3 on the rocks West of Cape Aspro and 9 (including 3 juveniles) at the Zapallo Fishing Station.

Eurasian Griffon Vulture *Gyps fulvus*. 11 (with 1 **Cinereous (Black) Vulture** *Aegypius monachus*) together on the same ledge at Tunnel Beach and one at Zapallo Fishing Station.

Black Kite *Milvus migrans*. One with 3 *Pernis apivorus* (qv).

European Honey Buzzard *Pernis apivorus* 3 with a 1 juvenile **Black Kite** *Milvus migrans* at RAF Akrotiri flying over the cliffs going SW.

Cinereous (Black) Vulture *Aegypius monachus*. One with 11 *Gyps fulvus* (qv).

Barn Owl *Tyto alba*. At its nest-hole on the sea-cliffs at RAF Akrotiri.

Table 1. Comparison of numbers of Eleonora's Falcons *Falco eleonora* and nests from 2002 to 2005 inclusive.

Survey Date	12 Sep 2002		17 Sep 2003		10 Sep 2004		13 Sep 2005	
Location	Birds	Nests	Birds	Nests	Birds	Nests	Birds	Nests ²
Cliffs W of Cape Aspro (E of Petra tou Romiou)	28	23	32	16	14	7	30	14
Cape Aspro	48	37	52	13	83	73	59	21 + 2
East of Cape Aspro	11	8	12	2	1	1	12	5
Bloodhound Camp (Evdhimou Bay cliffs)	17	12	23	9	19	12	18	9 + 1
Tunnel Beach	6	3	1	1	8	5	6	2
Zapallo Fishing Station	18	14	30	11	15	8	7	3
Quarry Cliffs	23	18	0	0	19	15	17	4
Kourion Cliffs ¹	/	/	/	/	20	17	26	16
Akrotiri East of TPMH to Radar Station	27	22	5	0	0	0	23	9 + 1
Akrotiri East of main Radar Station	17	14	41	13	31	7	20	9
Akrotiri Lighthouse	22	18	30	10	18	6	18	8
Totals	215	169	226	75	228	151	236	100 + 4

Note 1 New site discovered on the 2004 survey.

Note 2 Some figures show actual nests recorded plus possible nests eg 9 + 1.

Corrigenda

1. Three pictures by Keith Powrie in Osprey 5 were annotated in error as having been recorded during Bordsey 2003, and naturally do not appear in the list of species in Appendix 3 to that paper. They were of **Northern Pintail**, *Anas acute*, **Greater Scaub**, *Aythya marila* and **Eurasian Coot**, *Fulica atra*.

These species that may occur in the general area.

2. The list of participants to Oz Ex 04 (Appendix 3 to that paper) was also omitted from Osprey 2004. It will appear in part 2 of that paper in Osprey 7.

Results of a House Martin *Delichon urbicum* Survey at Troodos Station and Mount Olympus Retained Sites, Cyprus, on 25 May and 27 June 2005

LCpl Jason Wilson - WSBA Conservation Officer

Introduction

On 25 May 05, the Western Sovereign Base Area Conservation Officer (JW) and Deputy Conservation Officer (A Pickard) conducted the annual **House Martin** *Delichon urbica* survey at the retained sites of Troodos Station and Mount Olympus. An additional survey was conducted on 27 June 2005. Results of the survey will be forwarded to BirdLife Cyprus and to Frank Walsh and Derek Pomeroy, who have been conducting **House Martin** surveys in the Republic of Cyprus for the past six years, in conjunction with Birdlife Cyprus and the Kritou Terra, Environmental Studies Centre at Paphos. The purpose of the surveys is to obtain valid assessments of the fluctuations in the Cyprus **House Martin** population. The species has declined in Turkey, just to the north of Cyprus, by 30% between 1990 and 2000, and overall, BirdLife International has provisionally assigned it the conservation status 'Declining' (Burfield & van Bommel 2004).

Location

Troodos Station (**Fig 1**) and Mount Olympus (**Fig 2**) are located in Troodos Forest. Mount Olympus is at an elevation of some 1952m at which altitude the vegetation is sparse and low. Troodos Station is at around 1773m asl and is dominated by forest ecosystems of Calabrian and Corsican pine (*Pinus brutia* and *P. nigra* respectively). The main buildings at Troodos Station are of stone and mortar, where concrete frames hold masonry infill panels or mixed masonry and concrete blocks given a Tyrolean finish; they have corrugated sheet roofing. Those at Mount Olympus are brick-built except building 59, which is of steel frame and sheet steel wall and roof cladding construction.

Methodology

The purpose of the survey is to record active nests capable of holding eggs or chicks. The nests should have an entrance hole that is not too large, and without straw sticking out (parasitism by **House Sparrow** *Passer domesticus*). We had decided that for this year, only nests that were being built or used (active) would be recorded, and that old and broken nests, counted in with the previous year's survey, would not. Every building was checked at both locations. Once active nests were found, we recorded the following information:

- Building number.
- Number of active nests.
- The direction the wall, on which the nests were built, faced (aspect).
- Adult activity (eg nest building or feeding chicks).

Chicks in the nests were aged, using with the following key;

- A. Less than 7 days old (adults entering nest to feed chicks).
- B. 6-9 days old (adults feed the young from the exterior of the nest).
- C. 9 days and older (chick looking out of the nest hole).

At **Figs 1** and **2**, the maps of both locations highlight the buildings with active nests. The maps are reproduced with permission of DGLA (UK) and are Crown Copyright.

Weather

The weather conditions at Troodos and Olympus on 25 May 2005 were: 15.3°C maximum temperature, wind southerly with gusts of 13 knots, full cloud cover and slight rainfall - a cold grey day. On 27 June, the conditions were: 19.4°C maximum temperature, wind southwesterly with gusts of 29 knots, but overall it was fine and sunny with only a little cloud cover.

Troodos Station Results

There were 6 active nests recorded at Troodos Station on 25 May 2005. They all held chicks under seven days old (**Table 1**). The

subsequent survey on 27 Jun 05 confirmed the 6 active nests.

Mount Olympus Results

The survey on 25 May 2005 recorded 40 active nests, all of which contained chicks under seven days old (**Table 2**). The subsequent survey on 27 June confirmed 40 active nests.

Discussion

In Cyprus in 2005, the spring migration had been relatively late, most migrants on average being two weeks late. Most arrived or passed through in small numbers. At Troodos Station on the day of the first survey, some 35 **House Martins** were flying in the area of the nesting colony at Building 69 (Combined Mess). At this stage, only 6 active nests were recorded. They all had chicks under seven days old and probably had been set up by the first migrants to arrive. We decided that an additional survey should be conducted a few weeks later, to discover whether the number of active nests had increased.

The previous winter period had been particularly wet, with frequent showers occurring through to the beginning of June 2005. On the day of the first survey, the nest locations were covered in cloud, the temperature being relatively cool for this time of year. It appeared that the majority of **House Martins** at Troodos Station were delaying their nesting time, probably to coincide with the warmer temperatures that would lead to an increase of airborne insects that the adults could catch to feed their chicks.

According to the employees at Troodos Station, the majority of House Martins had started to arrive at the site only a couple of weeks before the first survey. The initial 6 active nests recorded were probably last year's and would have needed only minor repairs. We assumed there would be more nests on our next visit. However, this explanation for what might be happening at Troodos Station was inadequate to explain why we recorded 40 active nests at Mount Olympus on its first survey. These too all had chicks under seven days old. We also found eggshells and dead chicks on the ground below some of the nests. We decided we would re-visit Mount Olympus when we conducted the re-evaluation survey at Troodos Station.

The additional survey conducted on the 27 Jun 05 at both locations recorded exactly the same number of nests as previously. Because the majority of young had already fledged, we counted complete nests that were capable of holding chicks.

Conclusion

The 2004 survey had been carried out on 12 May, roughly two weeks before the first 2005 survey. The active nests recorded in the 2004 survey were at the same stage those in the 2005 survey - all chicks being under seven days old - which suggests that the **House Martin** nesting calendar 2005 was two weeks later than 2004. The numbers of active nests at Troodos Station in 2005 had drastically declined from the totals recorded in 2004 (**Table 3**). The change might have arisen because the majority of **House Martins** had arrived a couple of weeks later than in 2004 or that they had selected other breeding areas. (*Had more active nests been found on the second survey in 2005, possible explanations would have included that a second wave of migrants had chosen the same site, or that second broods had been started - Ed*). A better understanding of the colonies can only be achieved after at least four annual surveys have been conducted, in order to have sufficient data to indicate trends and to providing some explanation of short-term effects of weather.

Reference

Burfield, I. and F. van Bommel. 2004. (Compilers). *Birds in Europe: population estimates, trends and conservation status*. BirdLife Conservation Series No 12. BirdLife International. Cambridge, UK

Table 1

House Martin *Delichon urbica* survey, 25 May 05,
Troodos Station. Recorders: J Wilson and A Pickard.

Ref No	Building No	Nest aspect	Number of nests	Adult activity	Chick age	Notes
01	6	SW	1	Feeding chicks	A	Artificial plaster built nest, eggshells on ground
02	12	NE	1	Feeding chicks	A	On eave above glass window
03	14	NW	1	Feeding chicks	A	Above Accommodation Stores sign
04	69	NW	3	Feeding chicks	A	Complete nests under ledges or windows

Table 2

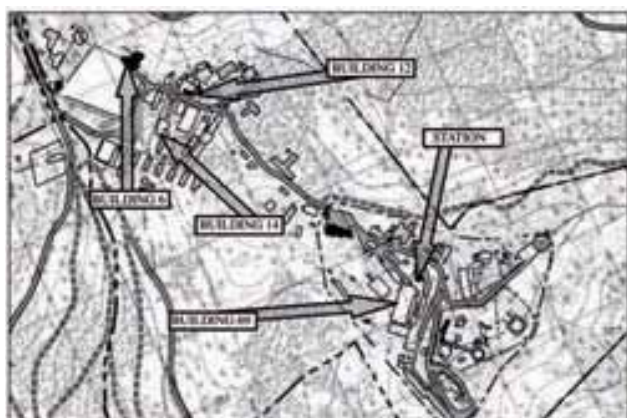
House Martin *Delichon urbica* survey 25 May 05, Mount Olympus.
Recorders: J Wilson and A Pickard.

Ref no	Building no	Nest aspect	No of nests	Adult activity	Chick age	Notes
01	30	W	2	Feeding chicks	A	Complete nests with chicks, eggshells on ground
02	30	N	4	Feeding chicks	A	Complete nests with chicks, eggshells on ground
03	Dome	Various	34	Feeding chicks	A	Complete nests with chicks, eggshells on ground, 7 dead chicks on ground at various locations

Table 3

Comparison of active **House Martin** *Delichon urbica* nests for 2004 and 2005.

2004		2005	
Troodos Station	39	Troodos Station	6
Mount Olympus	37	Mount Olympus	40
Total	76	Total	46

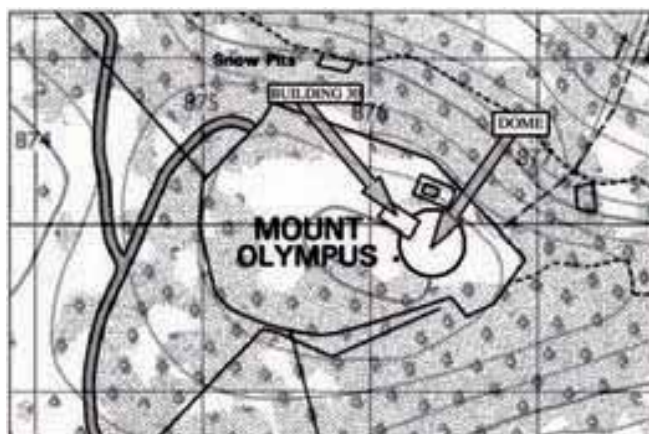


<< Figure 1

Map of Troodos Station, Cyprus. With the permission of DGLA (UK): Crown Copyright.

Figure 2 >>

Map of Mount Olympus Retained Sites, Cyprus. With the permission of DGLA (UK): Crown Copyright.



Gulls in Gibraltar

GibEx05 – the RAFOS Expedition to Gibraltar 6-21 March 2005

Mike Blair

Introduction

This, the third in the series of counts at approximately 18-month intervals of **Yellow-legged Gull** *Larus michahellis* at Gibraltar, took place at the beginning of the breeding season. This count used the same map sectors as did the previous two counts (Blair & Candelin 2003, Blair 2004) and followed the same basic methodology, counting from the same positions, or where vegetation had obscured sightlines, from positions that were close to the originals. Any differences are detailed below. For almost the entire period, the prevailing wind from the east, the *Levanter*, was often gale-force and brought not only frequent rain-showers, but also persistent low cloud sufficient to obscure visibility across the Strait of Gibraltar during daylight. Consequently, apart from a few short breaks of good visibility, diurnal migration was almost non-existent, the main surge occurring on 22 March, but at Tarifa on the Spanish mainland, when the rate of the larger passage migrants approximated to 30 000 per hour. Although there was little migration through Gibraltar proper, what ringing activity there was, under the auspices of the Gibraltar Ornithological and Natural History Society (GONHS) found some interesting species. The poor visibility also prevented much meaningful seabird observation being undertaken. Such was the impact of low cloud on gull counts that it was not possible to count each area twice. The gull work was done by Simon Dennis and myself.

Gull Taxonomy and Identification

It is not so long ago that **Yellow-legged Gull** was treated as a subspecies of **Herring Gull** *L. argentatus*. However, it was raised to full species status because, amongst other reasons, of the lack of extended hybridisation between the two forms as **Yellow-legged Gull** expanded its range northwards up the French Baltic coast into **Herring Gull** territory. Since then, taxonomic research into Palearctic gulls has come on apace, not least because a range of DNA techniques has provided a new set of tools with which to work at calculating how closely related various forms are. It should be noted that for many gull species, the taxonomic research results so far either are inconsistent (eg the differences between two species vary in different parts of their respective ranges, with the consequence that some populations may interbreed to some extent, while others do not) or they are incomplete (eg the distribution ranges are so vast that the extent of any variation in results is not yet known because of the remoteness of some populations). This means that some early declarations of 'new' species had been based on small samples taken from accessible populations - in some cases, radical decisions have had to be reversed and others suspended until the information becomes available. In the case of **Yellow-legged Gull**, the evidence suggests otherwise - the early revision of this species as *L. cachinnans* was probably too conservative, *L. cachinnans michahellis* then being assigned as the subspecies roughly from the east Mediterranean westwards into the Atlantic and *L. c. cachinnans* breeding north and east of the Black Sea. Malling Olsen and Larsson (2003) now treat the form at Gibraltar as being **Yellow-legged Gull** *L. michahellis*, which has two subspecies *michahellis* and *atlantis*, and the eastern form as **Caspian Gull** *L. cachinnans*, at present divided into three subspecies, *cachinnans*, the Central Asian *barabensis* ('Steppe' or 'Baraba' Gull) and the eastern *mongolicus* (**Mongolian Gull**). This is unlikely to be the last word on **Caspian Gull**, for relationships with eastern forms of other species such as **Vega Gull** *L. vegae* are far from clear. Various claims that *L. m. lusitanicus* should be treated as a subspecies (equivalent to the earlier suggestion of '*cantabricans*') of **Yellow-legged Gull**, are not supported by Malling Olsen and Larsson (2003) on the grounds that its DNA sequences are intermediate between *L. m. michahellis* and *L. m. atlantis* - in other words the degree of separation is insufficient.

As for identification of **Yellow-Legged Gull** individuals at Gibraltar, within the breeding areas and the land roosts, so far, I have noted relatively little individual variation, but it is important to bear in mind

the extent of individual variation known (Malling Olsen & Larsson 2003), which is sizeable, between the darkest adult *atlantis* (from the Atlantic Islands, resembling pale **Lesser Black-backed Gull** *L. fuscus graellsii*) and the lightest *michahellis* (from Biscay, resembling **Herring Gull** *L. argentatus*). For variation in adult head markings and between immatures, I recommend a close reading of the text and a careful examination of bird and wing illustrations in Malling Olsen and Larsson (2003). The presence of 'strangers' amongst the rafts of roosting gulls in the Strait of Gibraltar is not unlikely.

Observations concerning gull activity on GibEx05

1. Apparent incubation activity. Fewer than 5% of sitting birds observed appeared to be incubating eggs. This low figure may just indicate that the prime nesting sites, not viewable without entry to secure areas, held a high percentage of nests with eggs and that the sites that could be observed are secondary habitats. Access to the secure areas had been gained in 2002 (Blair & Candelin 2003). Secondary habitats apparently were just beginning to be occupied by pairs that had failed to establish a nest in prime habitat and thus were forced to select alternative sites. I note also that the culling programme, which aims to prevent further gull population expansion into the urban areas, includes removal of the eggs or rendering them infertile as part of the strategy.

2. Gull activity in the Strait of Gibraltar. Gull rafts seen from Europa Point exceeded 2000 birds regularly. They contained relatively few juveniles or obvious immatures. Rafts were usually between 1.5 and 4km offshore and not obviously associated with any tidal disturbance. Visibility was generally poor to very poor due to low cloud or haze. When shearwater feeding activity occurred at tide-driven turbulence, associated gull activity seemed opportunistic but erratic - on some occasions, gulls roosting on the sea paid no attention to frenzied shearwater activity alongside them.

3. Gull activity over the Rock. At about mid-morning (0900, although times varied according to wind and whether it was raining), the wheeling 'loafers' would begin to ascend, often soon being lost to sight in the low cloud, above Rock Gun. I concluded that the presence of cloud did not prevent the gulls following their established routine of soaring to altitude before heading northwest to the waste disposal site in mainland Spain behind Los Barrios. On visits to Spain on days when gull counts could not be carried out because of weather, it was noticeable that the looming cloud-cap over Gibraltar usually did not extend unbroken into Spain. Consequently, there usually was good visibility along the route to the disposal site, although wherever the ground rose higher inland or along the southern Spanish coast, it was hidden behind dense cloud. In other words, the physical presence of solid rock caused the westerly flow of the *Levanter* to condense into cloud as it hit the obstructions.

4. Habitat changes on the Rock. Since the first GibEx in 2002, many communication aerial farms at the north end of the Rock have been taken out of use and dismantled (Areas N, O & P). Consequently, there was no longer a need to control vegetation growth to allow access, rendering these sites increasingly unattractive to nesting or roosting gulls, and so subjectively certainly, counts there were lower. The general process of vegetation growth on the Rock continues to obscure previously-used sightlines. An impression was gained that as individual bushes become sturdier, gulls would prospect them, probably as roosts. The sight of gulls roosting on bushes or in trees seems to have become more common (see para 5 below). Whether such behaviour might lead to regular nesting in such locations is speculation, but it might be precursor activity as an unexpected response to the culling programme. Vegetation growth along the roads and tracks on the Upper Rock has been considerable since spring 2003. Many vantage points have been reduced in angular coverage

or even obscured, requiring others to be found as close as possible to the original sites. However, particular effort was directed to finding additional vantage points from which views of sizeable areas of the Upper Rock woodland and maquis could be obtained. More birds could be counted in those areas than before, but in two Areas, E and H, the previous 'multiplier' compensation factor applied has been reduced. Tourist activity was low, and usually after 1030. There was considerable nocturnal gull flight, punctuated by display and territory calls. Although much light is emitted from the streets, docks and the anchorage, for gulls, landing 400m above those lights on rock, cliff, trees or maquis must represent a risky strategy.

5. Gull distribution on the Rock. Overall, the general impression was that the roosting and nesting gulls made greater use of the southern Upper Rock than previously, yet the numbers roosting below that level to the south were lower than previously. Tree-roosting seemed more prevalent wherever there were trees on the Upper Rock, but especially so in areas above previously-used counting areas such as Q and R and especially W and X. Consequently, I made a particular effort to obtain viewpoints from which I could make counts of tree-roosting birds (**Table 1**). This was not easy because of the steep slopes, the slope topography and the dense and deep vegetation, but I found that a number of the roads on the Upper Rock offered long-range slant views, as did the small platform at the half-way point of the cable-car run. It is possible that many gulls may have moved because of the efficacy and disturbance of the culling effort at the north end of the Rock, which is much more open. I found a total of six gull nests (some probably held eggs, judging by the behaviour of the adults) in trees or on dense bushes in the southern half of the Upper Rock, very close to the roads. This alone does not prove that pairs are making more nesting attempts there, but if this small number is in any way representative of nesting numbers on the inaccessible and densely vegetated slopes, it is an interesting surmise. Because nesting was not well advanced in the areas that could be viewed and because we were unable to enter the areas behind security fences, we made no counts of Apparently Occupied Nests (AON).

6. Gulls at the nearest landfill waste disposal site to Gibraltar. This landfill waste disposal site lies about 7km to the north of the Spanish town of Los Barrios. I have designated it Los Barrios II to distinguish it from its now-closed predecessor. The mean estimate of **Yellow-legged Gulls** present at Los Barrios II was 4000 ± 250 . I noted the serious deterioration in the surface of the landfill site's access road, mostly because the tarmac, laid before Los Barrios II opened, has little prepared ballast underneath. I also noted that the work-force in the waste-separating buildings appeared not to use any kind of protective clothing. Lastly, the road that cuts through the closed Los Barrios I site had suffered serious subsidence and that the sealed slopes not only had changed shape, but were leaking into the roadside ditches.

7. The Gibraltar waste treatment site. This site lies below the southeast end of the Rock and is reached by the southern road access the closed road tunnel. It can be viewed from the Mediterranean Steps path. The mean estimate of gulls counted around the site was 300, very much lower than on previous visits, suggesting that there might have been some change in waste-processing management. Another difference was that very few were seen roosting above or near the site.

8. Gulls on the Great Sand Slopes. The restoration process on the Great Sand Slopes (Area E) is in full swing after the removal of the water-collecting concrete surfaces. Recreating lost habitat is very much an art plagued by unexpected difficulties, but here it is obvious that the aims of reintroducing flora are gradually being achieved. However, in their newly-changed state, the Great Sand Slopes are now an attractive nest site for **Yellow-legged Gull**, being almost completely inaccessible to human disturbance except by authorised visitors via one of the reservoir support tunnels, but it is of course possible that culling activities at the north end of the Rock have accelerated this process. Whether roosting or nesting, the gulls first choose the barest areas, which are at the top of the slope, where vegetation is slower to conquer. Large concentrations of gulls will clear areas of vegetation faster than it can grow, and so there is a concern that the gulls will undermine the stability of the slopes. The

further down the slope, the denser is the vegetation, grasses giving way to shrubs and scrub, and so in general, the fewer the roosting gulls. However, it was easy to find gulls mid-slope pulling out grass and roots to line their nests. Habitats on the Great Sand Slopes are at **Appendix 1, Table A1-1**. It is likely that GONHS have developed proposals to control gull numbers and activity on the slopes to allow a full vegetation community to become established. The correction factor applied to Area E was reduced from 2 to 1.2, because it was apparent that most gulls now were congregating in the new and more open grassy areas.

9. Changes in gull-counting methods on the Great Sand Slopes. Although gull numbers on the Great Sand Slopes (Area E) have increased, so has the obscuring increased vegetation, which makes it much more difficult to count the birds. To help minimise double-counting, the area was first divided into 9 sections, based on the lines of the fences and structures at right-angles to one another. There is no usable viewpoint that overlooks all sections and those used previously had become more limited by vegetation growth affecting the sightlines. The viewpoints used for these counts were chosen to ensure the best overall coverage. Details are given at **Appendix 1**.

Gull count results

The results of the gull counts are at **Appendix 2, Table A2-1**. In summary, the overall total of gulls counted on Gibraltar during the standard survey work was 10 318, but the confidence limits are larger this time (± 2000) because the weather limited some areas to only one count; at those areas counted twice, it was noticed that the second counts tended to be lower than the first counts, the implication being that roosting was inconsistent day to day and movement likely. The number of gulls present is estimated at being between 8318 and 12 318, my own personal view being that the lower limit was the more likely.

When time, opportunity and weather permitted, I made a particular effort to try to count gulls that were roosting in dense maquis and on treed on inaccessible and steep slopes in areas Q, R W and X. In **Table 1**, these counts are identified by subscript A. No correction factors were applied.

Table 1. Special counts in inaccessible Areas.

Area	Q _A	R _A	W _A	X _A
Ground	100	150	500	450
Loafers	25	25	300	300

I suggest that the counts in **Table 1** indicate a movement of nesting and roosting gulls from the northern end of the Rock to the southern end, possibly in response to successful culling efforts in the north. If the species adapts successfully to raising young in the dense southern maquis, then subsequent culling effort will be fraught with difficulty. (Loafers are individual birds that loiter in the air around and just above the perched birds. During these special counts, there was little or no activity at higher altitudes - birds at high level are grouped under 'Air' - and so airborne birds appear here under 'Loafers'; it is usually fairly straightforward to distinguish between the 'Air' and 'Loafer' categories.)

Ringling during GibEx05

GibEx05 had only two participants present for the whole period, but Julia and Robin Springett managed to attend for a few days towards the end, having just moved into an apartment in Spain. Julia was able to carry out only a very limited ringing programme under the supervision of GONHS. The results at **Appendix 3** include the fourth **Redwing** *Turdus iliacus* for Gibraltar and the first **Western Orphean Warbler** *Sylvia hortensis* trapped in 2005.

Raptors and large migrants

The extended period of low cloud and adverse winds meant that large migrants waited on the Moroccan coast, probably around Jebel Musa, rather than cross the Straits of Gibraltar. Meaningful raptor counts could not be made on a regular basis, although there was a 30-minute passage of **Black Kite** *Milvus migrans* down the east side of the Rock below the cloud cap on one day. Occasional bouts

of gull alarm would attract the attention to the odd raptor that had somehow made the crossing, but the mobbing was largely desultory. On the day we left Gibraltar, the Strait became free of cloud, but a slight easterly meant that the main crossing was at Tarifa, about 20km west of the Rock. During an hour spent counting from the car park off the main road at the ridge-line above Tarifa, the numbers counted in 3-minute periods suggested a passage rate of around 30 000 raptors or large migrants per hour.

Other Species

As for the large migrants, small passerine passage at Gibraltar was badly affected by the prevailing weather. Apart from the small numbers of birds trapped in the Jews' Gate nets, very few other species were recorded, except for a couple of days late on, when a few species were found resting in the main cemetery that abuts against the airfield. The sustained poor weather meant that several trips were made into Spain, where most of the 170 species recorded were seen. Even then, passerine migrants were in very short supply. A provisional list of species recorded during GibEx05 is on the RAFOS website, www.rafos.org.uk

Acknowledgements

As always, Dr John Cortes MBE was of enormous assistance to us before and during the fieldwork, as were GONHS members, particularly Charlie Perez. Julia and Robin Springett met us on arrival and continued to offer as much help as they could when they were free to do so. Simon Dennis is ideal for keeping one's spirits up even during the worst of weather.

Appendices

1. Area E - Great Sand Slopes.
2. Counts of **Yellow-legged Gull** *Larus michahellis* on Gibraltar during GibEx05.
3. Gibraltar Observatory Ringing during RAFOS GibEx05.

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Appendix I

Area E - Great Sand Slopes

Division into sectors, main viewpoints and vegetation cover.

Area E is divided into 3 horizontal 'bands' by rockfall-restraint fences and the concrete channel that once held the maintenance narrow-gauge railway servicing the water collection system. The upper and the middle bands are mostly visible from the ridge, although vegetation, whose thickness increases downslope, has an obscuring effect with distance. The lowest band is viewable, and imperfectly so, only from below or from the northernmost terrace accessible from the Mediterranean Steps path. There are also fences and walls that divide the slopes into vertical bands. I adopted the simple idea of numbering the sections comprising this 'lattice' to help monitor activities. I suggest that these numbers be put on posts visible from the appropriate viewpoints (see below), to help the systematic observation and monitoring, not only of gulls, but of vegetation cover. Section habitats are given at **Table A1-1**. The section divisions follow:

Downslope

a. The fence almost immediately below the Top of the Rock viewpoint, separating sections 1, 4 & 7 (to the south) from 2, 5 & 8 (centre).

b. The fence south of the first fence and paralleling it, separating sections 2, 5 & 8 (centre) from sections 3, 6 & 9 (to the north).

Across-slope

a. An old fence line, slightly raised,

above and paralleling the concrete channel lower down, separating 1, 2 & 3 (top layer) from 4, 5 & 6 (mid-layer).

b. The concrete channel that once held the narrow-gauge line that serviced the water collection area, separating 4, 5 & 6 (mid-layer) from 7, 8 & 9 (bottom layer).

In **Diagrams 1-3**, the Cardinal Points are given thus: N, S, E, W. The section numbers (1 to 9) read conventionally from the viewpoint of an observer along the low road, but the diagrams are oriented to align with conventional Gibraltar maps, which have East at the top. V represents the Viewpoints for the counts, V₁ being the Top of the Rock viewing platform (and other viewpoints just to the south and just above the restaurant), V₂ the north end of the mid-point terrace on the Mediterranean Steps walk, and V₃ the collection of roadside positions, determined by the topography of the slopes above, from which the lower sections best can be viewed. Dark shading indicates near-full coverage of a sector, light shading indicates that coverage from a viewpoint is partial due to topography or vegetation cover, and absence of shading indicates that the sector cannot be viewed from that viewpoint.

Diagram 1: coverage from Top of the Rock

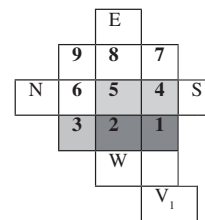


Diagram 2: coverage from the north end of the mid-point terrace on the Mediterranean Steps walk.

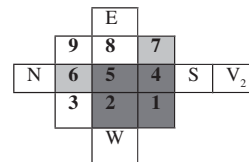


Diagram 3: coverage from a range of viewpoints along, or set back from (physical waterside access permitting), the low road beside the west shore of the Rock.

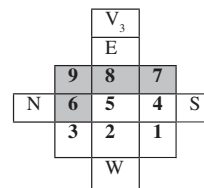


Table A1-1. Section habitats in March 2005, gull occupancy and comments.

Sector No	Habitat: variation from top to bottom	Gull preference & activity	Comments
1	Bare, merging first into thin grass cover, then into thick grass.	Several 100s - nesting activity	Culling target?
2	Medium grass cover, thickening quickly, then tall thick grass.	Several 100s - nesting activity	Culling target?
3	Thin grass cover, becoming bare at northern end.	Several 100s - nesting activity	Culling target?
4	Thin grass cover, succulents, then open areas below a shrub and tree band.	60+ roosting	Likely some hidden
5	Thick grass, shrubby at northern end.	50+	Likely some hidden
6	Thin grass, bare at northern end.	Several hundreds roosting	
7	Thin grass strip, long cliff outcrop, trees towards northern end.	20+ roosting	Likely some hidden
8	Thin, then thick grass, some scrub at northern end.	20+ roosting	Likely some hidden
9	Thin grass, some bare parts, some large succulents southern end.	30+ roosting	

Appendix 2

Counts of Yellow-legged Gull *Larus michahellis* on Gibraltar during GibEx05

Counts of Yellow-legged Gulls

All area boundaries remained identified as per Blair and Candelin (2003) and Blair (2004). With the exception of the Great Sand Slopes (Area E) (see **Appendix 1**), for the counts in **Table A2-1**, counts were made in the same way as per Blair and Candelin (2003) and Blair (2004). **Table A2-2** gives the classification of broad habitat

types and the range of the Correction Factors applied to each. For GibEx05, two areas had their Correction Factors reduced because of improved coverage attained, Area E (Great Sand Slopes) down to 1.2 from 2 and Area H (above Jews' Gate, but not visible from there) from 5 to 4.

Table A2-1. Counts of Yellow-legged Gulls on Gibraltar, by area, March 2005.

Area	A	B	C	D	E*	F	G	H	I*	J	K	L	M*	N*	O*	P*	Q*	R	S*	T*	U*	V*	W*	X*	FF	Row Totals
Ground	0	10	200	60	1717	100	90	200	102	250	40	80	47	240	85	90	47	85	42	75	135	130	188	345	10	4368
×CF	1	1.2	1.5	2	1.2	2.2	1.2	4	2	1.5	1.5	1.2	1.5	2	2.3	2	1.2	1.5	1.3	2	4	1.2	1.2	1.2	1	
Calc	0	12	300	120	2060	220	108	800	204	375	60	96	69	480	195	180	56	127	55	150	540	156	225	415	10	7013
Air	0	0	30	10	150	30	100	0	35	0	0	30	200	30	0	0	0	15	50	10	60	100	100	300	0	1250
Loafers	0	0	0	0	0	0	0	0	425	400	0	0	0	0	30	50	0	0	0	200	0	200	400	350	0	2055
Area Totals	0	12	330	130	2210	250	208	800	664	775	60	126	269	510	225	230	56	142	105	360	600	456	725	1065	10	10318

Key: Ground=Gulls counted roosting or on nest in Areas. CF=Correction Factor. Air= Gulls counted high above Areas. Loafers= Gulls counted low over Areas. *=two counts, =CF reduced (E, 2>1.2; H, 5>4) by better vantage or change of roost sites. In the areas counted twice, the trend was that the second counts were less than the first counts. The reason for this may be that the earlier counts tended to be in wetter weather when more birds might have roosted or lingered in the vicinity. Because bad weather had prevented counts on many days, the overall total of gulls counted is less reliable than on previous occasions. A total of 2701 birds was counted from areas counted only once. It therefore seems reasonable to state that overall, 10318±2000 gulls were counted.

Table A2. Habitat types in gull nesting and roosting (N&R) areas, with Compensation Factor (CF) range applicable to each type.

N&R Area Type	N&R Area Description	CF
1	Cliffs, bare rocks (or beach)	1-2 (1)
2	Sandy slopes above open garrigue	2
3	Maquis with open areas	2-3
4	Dense maquis or semi-succulent vegetation and relict woodland	4-5
5	Urban areas	1.2

Appendix 3

Gibraltar Observatory Ringing during RAFOS GibEx05

Ringing was carried out during the period 19 to 24 Mar 05 with no ringing on 23 March as conditions were too wet and windy. Using the pond net and nets on the lower slopes below the observatory, a total of 17 species was recorded, 119 new birds and 12 retraps. Two birds worthy of note were the Western Orphee Warbler, caught and ringed on 19 Mar, being the first moving through on spring migration, and the Redwing on 20 Mar, only the fourth ringing record for the Gibraltar Observatory. Julia Springett carried out the ringing under the close supervision of Charlie Perez.

Species	New	Retrap
Eurasian Hoopoe <i>Upupa epops</i>	2	
Blue Tit <i>Cyanistes caeruleus</i>	1	
Willow Warbler <i>Phylloscopus trochilus</i>	17	
Common Chiffchaff <i>Phylloscopus collybita</i>	45	1
Iberian Chiffchaff <i>Phylloscopus ibericus</i>	6	
Eurasian Blackcap <i>Sylvia atricapilla</i>	24	4
Western Orphee Warbler <i>Sylvia hortensis</i>	1	
Subalpine Warbler <i>Sylvia cantillans</i>	5	
Sardinian Warbler <i>Sylvia melanocephala</i>	3	4
Firecrest <i>Regulus ignicapilla</i>	1	
Common Blackbird <i>Turdus merula</i>		3
Redwing <i>Turdus iliacus</i>	1	
Eurasian Robin <i>Erithacus rubecula</i>	5	
Common Nightingale <i>Luscinia megarhynchos</i>	1	
Black Redstart <i>Phoenicurus ochrurus</i>	4	
Common Chaffinch <i>Fringilla coelebs</i>	2	
European Greenfinch <i>Carduelis chloris</i>	1	
Totals	119	12

Today's Music in the Margrave's Land

(BrandEx05, the RAFOS Expedition to Brandenburg 4-28 May 2004, Part 1)

Mike Blair

Introduction

Most people have heard the word 'Brandenburg' and probably only from hearing something described as 'the Brandenburg Concertos'. Brandenburg lies centrally in the east of Germany, a State or *Land* of the Federal Republic of Germany. It has a long and eventful history of war and culture, its prince or Margrave wielding considerable power and patronage until the mid-19th century. This is why an impoverished Johan Sebastian Bach had sent a set of six concerti to the Margrave, whose taste and judgement were so lacking that he didn't pay up. Since the last glaciation, the main influence on the landscape has been the Industrial Revolution, whose consequences were the draining of much of the marshy landscape to allow large-scale mineral extraction and to connect many towns by canals to the River Oder, which at the same time connected Berlin (which lies in the centre of Brandenburg) to the rest of Germany. The wide Oder forms the present border with Poland, whose existence in its present shape dates only from 1920. Soviet occupation until the 1990s kept Brandenburg isolated from many agricultural influences, but often subjected it to bureaucratic dogma in all matters, including ecology. Southern Brandenburg in recent times was a wasteland of vast, abandoned and highly-acidic mineral pits, making it possible for the freely-elected Land government to obtain approval for extensive spending on environmental policies. Moves to neutralise the acidity by dumping alkaline material fortunately were stalled by the government listening to the researchers and now many of these areas are gradually being restored through natural processes at whose core the evolutionary capability of many plant species can be seen to function.

In northern and central Brandenburg, the rise of the road vehicle has reduced the need for all but the largest canals for transportation, which meant that most of the natural waterways were no longer needed as water supply systems for the network. The easternmost part of this region forms the Oder's alluvial plain, which varies in width from a few hundred metres to several kilometres. The land that spreads west from the slight ridge overlooking the alluvial plain is gently rolling countryside, much of it forested, but the agricultural land, seemingly featureless apart from large numbers of wind turbines, is deceiving, because it conceals hundreds of streams and shallow, narrow valleys that are thickly covered in dense bushes, scrub and woodland. Look further and you find that where such features meet, or where the valley widens, there are innumerable ponds or lakes, often amid reedbeds. Whether these adjoin grassland, fields or deciduous, evergreen or mixed woodland, they provide a large variety of habitat edges, and because much of the woodland comes in sizeable plots, the entire area provides primary habitats for both specialist and generalist bird species. Many of the marshy woodlands were dammed or drained during the Soviet era, but restoration started locally as soon as the Wall fell, and within a year in the oldest forests, **Common Crane** *Grus grus* had returned to breed after some 40 years' absence. The section of Brandenburg called the Uckermark alone has 124 officially designated lakes.

RAFOS had been discussing for some time with Martin Flade a proposal for an expedition to survey common bird species in parts of Brandenburg during the breeding season. There is no perfect period, because species such as Woodpeckers tend to nest early, and are subsequently often difficult to find, and many others are late breeders, and so May is perhaps the best compromise. Martin, an ornithologist of formidable and deserved reputation, works for the Brandenburg government in the Brandenburg Environmental Office, Department of Sustainable Natural Development and Conservation as a Project Leader.

Aim

The aim of BrandEx05 was to carry out as many bird survey transects (preferably worked by pairs, but sometimes by trios or singletons) as possible within the time-frame.

The Reserves

Brandenburg's incredibly diverse ecology is well-served by a network of reserves whose level of protection and status have been legally attained only in the last decades of the 20th century. It was widely recognised at an early stage that the disappearance of the Soviet-style economy would effectively impoverish much of the population and it is scarcely surprising that this region seized the initiative on wind-power to augment electricity generation because the inefficient power stations had become too expensive to maintain and heavily polluted the landscape. Here, too, appropriate-technology wood-burning stoves made from modern materials have become a huge success, for Brandenburg is rich in forests. As well as the Berlin conurbation, there are many towns and cities, and much of the landscape is farmed. It is therefore a credit to the initiative taken, and to the support obtained from the population, that so much of the landscape takes the form of integral reserves and nature parks, in two of which BrandEx05 took place.

Schorfheide-Chorin Biosphere Reserve

The centre of this large reserve lies some 75 km northeast of Berlin in the southern Uckermark, its total area being 129 161 ha. It includes parts of the Uckermark, Barnim, Märkisch-Oderland and Oberhavel counties, and is bounded by the five towns of Eberswalde-Finow, Bad Freienwalde, Angermünde, Prenzlau and Templin. It came into being legally after the general Ordinance on the Establishment of Nature-Protection Areas and Landscape Areas of Central Significance under the overall name of *Schorfheide-Chorin Biosphere Reserve* on 12 September 1990, promulgation occurring on 1 Oct. 1990 as part of the course of the political change in East Germany, via the Unification Treaty into valid law of the Federal Republic of Germany. In December 1990 the *Schorfheide-Chorin Biosphere Reserve* became a UNESCO-designated reserve.

Forests comprise 48% of the reserve's area, arable land 29%, grassland 10%, waterbodies 7%, settlements 2% and 'others' 4%. Uniquely, the Biosphere Reserve contains all the forms of a young-moraine landscape, created 12-15,000 years ago in the Pomeranian Stage of the Vistula Glaciation. The result was a singular cultural landscape characterised by a panorama of hilly terminal moraine chains, rolling ground-moraine plates, gentle valleys and steep cliffs, outwash areas and mires, lakes, kettle-holes, drumlins, stream channels and many small wetlands. The glacial landscape elements are intimately interconnected, creating the exceptionally heterogeneous landscape structure. Rich in lakes and ponds, the reserve has more than 220 lakes larger than 1 ha, mainly in the ground and terminal moraine areas (See photo section). Scattered throughout the landscape are thousands of ponds and wetlands. However, there are only a few creeks, some partially in their natural condition. The continental watershed between the Baltic and North Seas runs through the reserve; Dölln Creek empties westward into the Havel and Elbe (draining into the North Sea) and the Ucker, Welse and Ragöse drain eastwards, ultimately into the Baltic (Brandenburg Environmental Office [BEO] 2004a).

Uckermark Lakes Nature Park

This reserve of 89 500 ha is centred at 53°09'N, 13°24'E in northern Brandenburg and comprises sections of the Neustrelitz small-lakes area, the Schorfheide, **Plate 2**, Brandenburg, the Uckermark hills, the Templin plate, the Zehdenick-Spandau Havel lowlands, the Gransee plate and the Woldegk-Feldberg hills. It was established on 29 April 1997 by the Ministry for Environment, Nature Conservation and Regional Planning of the state of Brandenburg.

Forests and woodland comprise 41% of the reserve, arable land and grassland 39%, settlements and roads 13% and waterbodies 7%. The inhabitants are fiercely proud of this diverse landscape. Together with the Unteres Odertal National Park and the Schorfheide-Chorin Biosphere Reserve, the Uckermark Lakes Nature Park comprise

an appealing and diverse landscape. The 895km² area adjoins the similar landscape of Mecklenburg-Vorpommern to the north as the Feldberger Lakes Nature Park, the whole being bordered by the cities of Prenzlau, Fürstenberg/Havel, Zehdenick and Templin. Having only 22 inhabitants/km², the Uckermark is one of Germany's most thinly inhabited areas, where it is easy to find solitude. The Nature Park is criss-crossed by ice margins from the Vistula glaciation of 20-15,000 years ago. Patterns of low hills and small lakes occur recur across the landscape. To the south, the ice left extended sandy areas. At Brüsenwalde and Tangersdorf, impressive inland dunes were created by wind drifting. The elongated stream-lakes, the kettle holes and the intact mires are typical of this region (BEO 2004b).

Biological Diversity

Schorfheide-Chorin. Possessing such a wide variety of habitats, the Brandenburg reserves are amongst the richest in Europe for flora and fauna. An extensive plant and wildlife structure remains, dependent on climate, soil, landscape, water supply and the diverse land-use forms. Fully 1020 vascular plant species have been recorded here, 141 of which are threatened in Germany. In the dry grassland associations, these include meadow pasque flower *Pulsatilla pratensis*, Siberian bellflower *Campanula sibirica*, feather grass *Stipa capillata*, *S. pennata* and anthericum *Anthericum ramosum*, while round-leaved sundew *Drosera rotundifolia*, loessel twayblade *Liparis loeselii* and marsh tea *Ledum palustre* still grow in the mires.

The insects demonstrate a species wealth corresponding to this diverse habitat mosaic: eg 53 dragonfly species have been recorded in the Biosphere Reserve, representing two-thirds of all German dragonfly species. Furthermore, 585 large butterfly species have been found. A total of over 2000 species of insects and arachnids have been recorded, covering spiders, beetles, bugs, diptera, hymenoptera and orthoptera. Sixteen insect species have been recorded that previously had been thought absent or extinct in Brandenburg; a further 275 species appear in the *Red Data Book*.

The vertebrate spectrum of species is especially large. Of 51 native fish species in Brandenburg, 41 occur in the Biosphere Reserve; seven of which are threatened nation-wide. Of the 14 Brandenburg amphibian species, 13 occur on the reserve. The numbers of fire-bellied toad *Bombina orientalis*, otherwise almost extinct in Germany, and tree frog *Hyla arborea*, are especially remarkable. Eight species of reptiles occur; the European pond turtle *Emys orbicularis* and green lizard *Lacerta viridis* being in their last German stronghold here.

In the Biosphere Reserve, 165 breeding bird species have been recorded since 1995, and for a further 45 the region is important as a migration, resting or wintering area. Large species of particular importance that occur **White-tailed Eagle** *Haliaeetus albicilla*, **Osprey** *Pandion haliaetus*, **Lesser Spotted Eagle** *Aquila pomarina*, **Black Stork** *Ciconia nigra* and **Eurasian Eagle Owl** *Bubo bubo*. **Great Bustard** (only 3-5 birds) probably will soon vanish from the region as a breeding bird. However, the occurrence of **Common Crane** (300+ pairs nest here), has developed well since the 1980s. Furthermore, up to 10 000 Common Cranes migrating to their winter quarters have several traditional roosting sites on the reserve. When other migratory birds such as geese, swans, and **Northern Lapwing** *Vanellus vanellus* are also considered, it makes the Biosphere Reserve an internationally significant bird-resting area. Of particular additional significance for bird protection are several biotopes: the near-natural beech and swamp forests possessing large populations, amongst others, of **Middle Spotted Woodpecker** *Dendrocopos medius*, **Red-breasted Flycatcher** *Ficedula parva* and **Green Sandpiper** *Tringa ochropus*; the richly structured agrarian landscapes and dry-grassland areas with high densities of, for example, **Common Quail** *Coturnix coturnix*, **Red-backed Shrike** *Lanius collurio*, **Barred Warbler** *Sylvia nisoria*, **Corn Bunting** *Emberiza calandra*, and the reedbed mires and reedbeds of the lakes - these are important breeding sites of such rare and threatened species as **Great Bittern** *Botaurus stellaris*, **Red-necked Grebe** *Podiceps grisegena*, **Common and Black Terns** (*Sterna hirundo*, *Chlidonias niger*), **Little Crane** *Porzana parva*, **Great Reed Warbler** *Acrocephalus arundinaceus*, **Bluethroat** *Luscinia svecica* and **Bearded Redling** *Panurus biarmicus*.

Mammalian fauna, too, are diverse. Of bat species alone, 16 breed here, all of which are more or less threatened or endangered. Common dormouse *Glis glis* and fat dormouse *Muscardinus avellanarius* have been recorded many times in beech forests. Otter *Lutra lutra* and European beavers *Castor fiber* still occur in all suitable habitats

across the entire protected area. Such completeness of the species assemblage across many landscape types is characteristic of the Schorfheide-Chorin Biosphere Reserve. Why should this be? The protected areas are spacious and the anthropogenic impact is low. Many natural areas are relatively undisturbed by roads, railways or power lines. sustainable and careful utilisation of the landscape has contributed hugely to the great biodiversity of the area (BEO 2004a).

Uckermark Lakes. To the north, near-natural beech forests of oaks, small-leaved lime and sycamore dominate, characteristic breeding bird species being Middle-spotted Woodpecker and Red-breasted Flycatcher. To the south, pines determine the picture. The various lake types, which differ in shape, water supply and nutrient and lime content, have special significance for the Nature Park. Here **Great Bittern**, **Common Goldeneye** *Bucephala clangula*, **Eurasian Teal** *Anas crecca* and **Garganey** *A. querquedula* breed. A peculiarity is the occurrence of the European pond turtle *Emys orbicularis*. Of especial botanic interest are the lime-deficient lakes, possessing shoreweed *Littorella uniflora* that has overgrown lakeside shores between Lychen and Warthe. The near-natural brook sections such as the Linow, Hegestein and Küstrinchen creeks, or the Strom and the last near-natural section of the upper Havel are home for the rare brook trout *Salmo trutta forma fario*, river crayfish *Astacus astacus* and otter, the last-named being found throughout.

The wealth of mires is just as remarkable, where broad-leaved and dainty cotton grass (*Eriophorum latifolium* and *E. gracile*), loesel's twayblade, marsh tea and the carnivorous sundew grow, and where the moor frog *Rana arvalis* and raft spider *Dolomedes fimbriatus* live. Of 15 orchid species recorded here, the rare *Dactylorhiza orchroleuca* has its only known site in Brandenburg here.

Due to the rich structure of the landscape, several threatened bird species find a home in the area, including rather high densities of **White-tailed Eagle**, **Lesser Spotted Eagle**, **Black Stork** and **White Stork** *Ciconia ciconia*. The Nature Park has extremely high nesting densities of **Osprey** and **Common Crane**. The Vogelsang and Tangersdorfer Heide former military training areas, vacated in 1991, now have been incorporated into the 7350ha *Kleine Schorfheide* Natural Protection Area (see photo section). These unfragmented portions of some 2000ha comprises heathland and fields of grey hairgrass. Rare bird species like **European Nightjar** *Caprimulgus europaeus*, **Eurasian Hoopoe** *Upupa epops* and **Woodlark** *Lullula arborea* breed. While dunes form on the large drift-sand areas, the recently-vacated lowlands now allow marsh forests and soft-wood riparian forests to develop. In the near-natural streams of the Havel Lowlands, endangered fish species like bitterling *Rhodeus sericeus amarus*, loach *Cobitis taenia* and dace *Leuciscus leuciscus* breed. Since the early 1980s, the Elbe beaver *Castor fiber albicollis* has decisively shaped the area, with 120ha of former moist meadows already flooded (BEO 2004b).

Methods

Within the principle expressed in the Aim, transects were selected beforehand to cover as many habitats as possible and to cover the general area as evenly as possible, apart from any areas designated by Martin Flade as out of bounds (to avoid disturbing protected breeding species). However, should any habitat discovered during a transect be deemed worthy of a separate visit, either as part of a transect or for spot counts or casual records, then that habitat was visited, time and manpower permitting. Casual recording was also employed around the accommodation locations and en route to or from the formal recording locations. Work carried out was marked on the excellent large-scale photocopy maps supplied by Martin Flade.

Weather

Traditionally, May in Brandenburg is mostly a dry month when temperatures begin to approach summer levels, but periods of showers or more prolonged rain are not uncommon, which is reasonably typical of its continental location. However, in spring 2005, heavy late March snowfall did not disappear until 29 April, and for the first week of BrandEx05, many grassy areas bore that 'flattened' look. Until 22 May, most days were cool or cold (5°C in forests at midday) and many were damp or very wet, resulting in low bird numbers counted, although variety was fairly good. From the ground, it seemed as several weather systems were locked in a stately dance, as clouds

marched from the east, from the north, from the south and then back to from the east again. Before 28 May, 30°C had been reached twice as the true late spring weather rushed in, bringing migrants in good numbers, but some of which were almost three weeks late.

Patterns of Bird Species

Despite the cold start, **Eurasian Golden Oriole** *Oriolus oriolus* was widespread from 5 May and singing in the trees behind our accommodation. Also ubiquitous was **Wood Warbler** *Phylloscopus sibilatrix*. Because the foliage was late, it was comparatively straightforward to see both species. However, the general pattern was that the main body of each migratory species was late in arriving, by between two and five weeks. **Black Kite** *Milvus migrans* initially was scarce, although the resident **Red Kite** *M. milvus* was reasonably reliable. Reedbeds were almost silent for the first 10 days and hirundines were scarce. There was only one record of **European Turtle Dove** *Streptopelia turtur*, and well into the second period. **Great Grey Shrike** *Lanius excubitor* appeared in the last week and immediately began performing its spectacular territorial display, a fast, low pass whipping up into a zoom climb that ended in an immaculate wing-over into a vertical descent.

One early record of a **Red-breasted Flycatcher** *Ficedula parva* displaying to a mildly-interested female was not the harbinger of many to follow. Two weeks later, the occasional singing male in mature deciduous forest not yet in full leaf was all that could be found, but it was around this time when small passerines began to arrive in reasonable numbers. Consequently, the records from our first area are mostly of thinly-scattered species in low densities, whereas the second period afforded us the numbers and variety we had expected to encounter in normal years. At one location, **Marsh, Sedge, Eurasian Reed, Savi's and Icterine Warblers** (*Acrocephalus palustris*, *A. schoenobaenus*, *A. scirpaceus*, *Locustella luscinioides* and *Hippolais icterina* respectively) all were singing on territories close to, or overlapping each other, while the earlier **Blackcaps** *Sylvia atricapilla* tended to look bemused at the sudden influx of neighbours. Resident or partial migrant passerine species may have started to hold territory at about the normal time, but evidence of broods (adults carrying food) was scarcer than expected and song activity was sustained in a fashion suggesting that hatching was late.

One species not within our survey area, but one that was keenly anticipated during a break from the work, is **Aquatic Warbler** *Acrocephalus paludicola*, which breeds in very small numbers in the Oder floodplain, in grassland that comprises the flood-relief zone, divided by substantial bunds, and is a protected area. The actual location is but a short walk from a sizeable town, which probably makes this population the easiest to reach! This species also was somewhat late, but fortunately the two early participants who suffered the worst of the weather managed to glimpse just one on their last full day. The rest of the party were fortunate to be taken later by Martin Flade to the 2005 main breeding location, a few hundred metres further on. Singing males were clearly visible at short range, once they could be distinguished just below the tops of the long grass stalks. However, the background singing during that walk included **Common Nightingale** *Luscinia megarhynchos*, **Thrush Nightingale** *L. luscinia* and **Bluethroat** *L. svecica*. The photo section illustrates just some of the variety of bird species encountered.

Organisation and Accommodation

Transport in eastern Germany is generally excellent. Berlin has

three civil airports, from two of which urban trains link with the main-line termini - coaches and taxis link the third, more central airport. Low-cost airlines serve Berlin from several UK airports, and express trains run from Berlin to many parts of Brandenburg about every two hours. Our first area was in northern Brandenburg - indeed, our accommodation at Wrechen, in converted stables in the grounds of a formerly neglected country house, was 500m outside the *Land*! For those who flew out, the train destination was the small city of Prenzlau, about 40km east of Wrechen, which is about an hour and 40 minutes by road north from Berlin's southern airport, Schöenefeld. Our second area was more central, our accommodation being in a former village school at Stegelitz, a small village 1km west of the Berlin-Prenzlau autobahn, and served well by trains from the tiny station 3km away at Wilmersdorf, where even expresses stopped! As elsewhere in Germany, accommodation in eastern Germany is now comfortable and inexpensive away from the main holiday and recreation centres. We stayed at Wrechen (See photo section) until 20 May, when we moved to Die Alte Schule at Stegelitz (see photo section). Driving to Brandenburg from anywhere in Western Europe is straightforward - motorways connect from the Channel Tunnel. Participants selected the most convenient periods to attend, and so it was relatively straightforward to arrange their collection and dispersal.

Participants

I drove out from UK, Adrian Hayward drove from north Germany, and Sue Fleming, Peter Evans, Jon Orme, Julian Quail, Simon Dennis, Dave Thomas and Ian Drake flew from UK airports into Berlin airports. Individual periods of attendance were upwards of nine days, to best fit when participants could attend.

Survey Results

The large amount of data collected has yet to be finalised and will be summarised in Part 2 of this report in a future issue of *Osprey*.

Acknowledgements

The superb preparation and the inspiration for this survey was due to Martin Flade, whose keen interest and encouragement were appreciated by all. A large number of people from many Brandenburg organisations helped arrange many aspects and they will be thanked in appropriate detail in Part 2. We are grateful to Petra and Eberhard Kube for their hospitality and kindness at Wrechen and we admire Wolfgang at Stegelitz for his equanimity when asked endless questions about his district - at both places we ate very well indeed.

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Schloss Wrechen, Brandenburg May 05 © David Thomas.



Brand Ex 05 accommodation at Wrechen in converted stables, Brandenburg May 05 © David Thomas.

Exercise Brahminy Kite

The Army Ornithological Society visit to Malaysia - 13th to 27th February 2005

Tim Hallchurch & Hilary Nash

Planning for the expedition began in 2003, and included a recce visit by Tim Hallchurch, Patricia Davies and Catherine Shephard covering the mainland and Langkawi. Our Ground Agent was Berkeley International. Wisma RKT, Jalan Raja Abdullah, 50300 Kuala Lumpur, Malaysia, E-mail: john@berkeleyinternational.net.Tel: 603 2698-9640 Fax: 603 2693-4899. Participating were: AOS: Hilary Nash, Bob Brooks, Val Brooks, Keith Powrie, Ann Powrie and Tim Hallchurch; RAFOS: Pete Gray, Jenny Gray, Dave Bodley, Anne Bodley and Val Kersley. Others that joined us were Tony Lancaster and Cynthia Styles. Dave and Ann Bodley and Val Kersley had previously served in Malaya with the RAF.

Monday 14th. We got through Immigration and Customs with no hassle and were met by our guide Mano Tharmaligam. Some started birding at once and got 5 species at the airport, the brightest of which was a **Black-naped Oriole** *Oriolus chinensis*. Once on the bus we set off for our first hotel in Kuala Selangor and saw **Red Jungle Fowl** *Gallus gallus* en route. We paused at a service area called Denytil, for a cold drink. Here we saw **Long-tailed Parakeets** *Psittacula longicauda* and **Black Baza** *Aviceda leuphotes*. Our hotel was the De Palma Inn and once we had dropped off our luggage, we set off for Kuala Selangor or Nabir Park, an area of coastal mangos with ditches and ponds. It was good for birds and sightings included a **Oriental (Crested) Honey-buzzard** *Pernis ptilorhynchus* and **Black-winged Kites** *Elanus caeruleus*. We also saw a **Laced Woodpecker** *Picus vittatus*. After supper there was an owl walk, which produced no owls but provided good views of **Large-tailed Nightjars** *Caprimulgus climacurus*.

Tuesday 15th. We departed for Fraser's Hill at 7:30am, but stopped en route to catch up with a **Lesser Coucal** *Centropus bengalensis*, before reaching our first planned stop at Rawang, a freshwater swamp with a large colony of **Black-crowned Night Herons** *Nycticorax nycticorax* as well as **Purple Herons** *Ardea purpurea* and **Little Egrets** *Egretta garzetta*; the site is under threat from building development in spite of efforts to save it. Our next official stop was Ulu Yam, hot dry area of open grassland and home to several **Barred Buttonquails** *Turnix susciator taigoo* and 2 **Long-tailed Shrikes** *Lanius schach*. In an area of irrigated cultivation we found 3 snipe, probably **Swinhoe's** *Gallinago megala*, as well as 5 **Pacific Golden Plovers** *Pluvialis fulva*. It was then on to the Shahzan Inn at Fraser's Hill for a very late lunch, the keener ones doing some birding outside the hotel and catching up with **Chestnut-capped Laughing Thrushes** *Garrulax mitratus* and **Streaked Spiderhunters** *Arachnothera magna*. We then got into forest birding, which can be very hard work and a bit dull until a bird wave hits and then you need to look in three directions at once. In this way we caught up with the **Cutia** *Cutia nipalensis*, a good tick.

Wednesday 16th. Most were awakened at 6:10am by the mullah calling the faithful to prayer. Our first destination was the waterfall where most of us missed the **Malay Whistling Thrush** *Myiophonus robinsoni*, one of only 4 endemic species in the country. We did get good views of **Slaty-backed Forktails** *Enicurus schistaceus* on the stream. Our second destination was the rubbish tip, which stank and was full of flies, but was thus good for birds including a **Lesser Yellow-naped Woodpecker** *Picus chlorolophus* and **Arctic Warblers** *Phylloscopus borealis*. After lunch, birding by some produced the only **Green Magpie** *Cissa chinensis* of the trip. We walked the Mosque Trail and here Mano called up a **Pygmy Wren Babbler** *Pnoepyga pusilla* and we all had excellent views. We also saw a **Mountain Bulbul** *Hypsipetes mccllellandii* and a **Fire-breasted Flowerpecker** *Dicaeum ignipectus*. After supper we went to an Army Barracks to look for a Wood Owl, with no luck, but we did find 2 **Grey (Jungle) Nightjars** *Caprimulgus indicus* and rhinoceros beetles *Chalcosoma atlas* as well as several splendid moths attracted

by the security lighting.

Thursday 17th. The mullah awoke us again at 6:10am; less popular this time, as we didn't have to be off until 8am which was when the down traffic on the Gap Road was allowed to travel. 'Down' goes on even hours and 'Up' on odd hours, with a 20-minute period to allow traffic to clear. We walked the last 5km of the road rather slowly, but we got good views of a **Black Laughing-thrush** *Garrulax lugubris* and 2 **Red-bearded Bee-eaters** *Nyctyornis amictus*. Also seen were **Sultan Tits** *Melanochlora sultanea* and a **Gold-whiskered Barbet** *Megalaima chrysopogon*. The 3:30 pm Bishop's Trail walk produced a brief glimpse of a **Lesser Shortwing** *Brachypteryx leucophrys* for a lucky 2, but little else. Very heavy rain in the evening put paid to any owl hunting.

Friday 18th. As it was Friday, the mullah was up even earlier than usual, again rendering the alarm clock redundant. We were all down to breakfast in good time and managed to clear our final bills, which we thought we had paid the previous evening. We drove down to The Gap, where we stopped to do some birding. Some had a lucky sighting of a **Buff-breasted Jungle Babbler** *Trichastoma tickelli*. Later on we found a party of **Ochraceous Bulbul** *Criniger ochraceus*, and a **Black-thighed (legged) Falconet** *Microhierax fringillarius*. A **Brown Barbet** *Calorhamphus fuliginosus* was seen feeding on a wild fig tree. We also heard a **Collared Owlet** *Glaucidium brodiei*, but could not find it; this was the nearest we got to any owl on this trip. En route again and a luggage door opened, dumping a bag on the road, luckily it suffered only a few scuff marks – a following motorist had kindly rescued it. We made a fuel stop at Ruab, where we saw a **Common (Long-tailed) Tailorbird** *Orthotomus sutoris* and **Tree Sparrows** *Passer montanus*. Lunch was at Kuala Tembeling, after which we embarked in a canoe with a 40 hp OBM for a 2 hour plus journey up the River Tembeling to the National Park HQ and Visitor Centre at Kuala Tahan. The journey was not very comfortable and relatively birdless, the most frequent being the **Common Sandpiper** *Actitis hypoleucos*. It was very hot and sticky here, a bit of a shock after the pleasant climate in Fraser's Hill. A walk round the Centre Garden produced **Southern Pied Hornbill** *Anthracoceros convexus* and several wild boars *Sus scrofa*. We met a tourist who had just been badly bitten trying to hand feed one of the latter, a salutary reminder not to mess with them or any wild animal even if they appear tame.

Saturday 19th. The air conditioning was very effective and in the early hours of the morning necessitated a quilt. After breakfast we set out along the Forest Trail to Terrasek Hill to look for the **Great Argus Pheasant** *Argusianus argus*, which had 'a dancing place' there. It was hard work getting there with several steep climbs, which in the heat made people puff. Luckily it was dry underfoot, which made the going much easier. He wasn't there and the place looked pretty deserted. In the afternoon we took a local trail which was good for both bulbuls and babblers, though we all had cricked necks from staring into the canopy. After supper some went 'owling' with Mano, but there were none around though we did get a glimpse of a **Javan Frogmouth** *Batrachostomus javensis*.

Sunday 20th. In the morning we took a group of 3-seat canoes up the Tahan River, which was low from lack of rain. The boatmen showed great skill getting us through the shallow rapids. Not a very satisfactory trip as the lead canoe saw most of the birds and frightened them away for the rest of us. We saw the **Stork-billed Kingfisher** *Pelargopsis capensis* and a **Masked Finfoot** *Heliopais personata*. We also saw the **Straw-headed Bulbul** *Pycnonotus zeylanicus* a bird that is getting scarce. We got back too late for normal lunch so we had à la carte lunch, which was very good but rather too much. The late afternoon walk around the camp was thinly attended, but those who attended had the opportunity to catch up on several of the

birds previously missed such as **Raffles' Malkoha** *Phaenicophaeus chlorophaea*, **Black-capped Babbler** *Pellorneum capistratum* and **Striped Tit-babbler** *Macronous gularis*. We also heard white-handed gibbons *Lar entelloides*. In the evening there was a bit of a discussion as to whether we should do serious birding or use the canopy walkway the next day.

Monday 21st. After breakfast the "tripod men" set up 'scopes to scan the village for **Black-thighed** (legged) **Falconets** *Microhierax fringillarius* and found a group of 4 sitting in a tree with some **Philippine Glossy Starlings** *Aplonis panayensis*, which looked huge by comparison. In the clear morning air the x60 lens worked wonders. At 8 am we went 20 minutes down river to the Yong Landing, where we disembarked on to a forest trail. The birding was initially rather slow, but picked up and we saw a **Rhinoceros Hornbill** *Buceros rhinoceros*. By the end we had good views of **Chestnut-breasted Ramphococcyx curvirostris** and **Black-bellied Malkoha** *Phaenicophaeus diardi* as well as a **Crimson** (Scarlet)-rumped **Trogon** *Harpactes duvaucelii*. In the afternoon some continued birding at the Yong Landing. Others opted for the Canopy Walkway and one group who had 'dipped' on the **Finfoot** had another search for it on the Tahan River. The boatmen did everything possible, but again no luck. That evening we saw a beautiful male **Crested Fireback-pheasant** *Lophura ignite* feeding on the forest floor.

Tuesday 22nd. Some were up at dawn (7am) to look for **Firebacks** and found 3 females roosting in a tree. After breakfast, another scan of the village revealed more **Black-legged (thighed) Falconets** and 8 **Thick-billed Pigeons** *Treron curvirostra*. We then embarked for our return boat trip to Kuala Tembeling. The river was now very low and the boat grounded on a sandbank and we had to get out and push it off. Bird life was better than the journey up. We rejoined the coach for a drive to a mock (very mock) French Château resort called Colmar Tropicale at Bukit Tinggi, which was almost deserted. It looks like a Hollywood set. Its most notable features were huge spiders with webs strung between the trees. Our birding was a tea-time walk at the Japanese Tea Garden.

Wednesday 23rd. We made an early start back up to the Japanese Tea Garden; initially it was very quiet, but as the day warmed up more birds appeared. A **Grey-headed (faced) Buzzard** *Butastur indicus* flew overhead and a **Large Wood-shrike** *Tephrodornis gularis* was a new bird for the trip list as was a **Korean (Yellow-rumped) Flycatcher** *Ficedula zanthopygia* and **Black-tailed (Japanese) Paradise-flycatcher** *Terpsiphone atrocaudata*. We then walked down the road where a landslip was being repaired. Mano said most of the labourers were illegal immigrants from Indonesia. We were shown a large black scorpion about 20 cm long. Back to the château for a lunch of chicken, which seemed to be nothing but bone? After lunch we set off for Kuala Lumpur, but took the old road and stopped to go birding. We had excellent views of a **Rufous-crowned Forktail** (Chestnut-naped Forktail) *Enicurus ruficapillus*, a beautiful bird. We also saw the glamorous **Orange-bellied Sunbird** *Nectarinia venusta* and **Everett's White-Eye** *Zosterops everetti*. The bus had driven too far down the road and we had rather a long hot walk to reach it. We approached Kuala Lumpur to see the Twin Towers silhouetted against a bright red ball of the setting sun. The vivid sunset caused by industrial smog, shades of Mordor! In KL we were housed in the Hotel Istana, a very plush 5-star affair. Here we said farewell to our excellent guide Mano. Supper was good and even if the beer was expensive it was a comfortable place.

Thursday 24th. A later start with a suitably plush breakfast. The planned itinerary was the Bird Park followed by lunch in Selangor Golf Club, where we had to wear a collar and tie. Some followed Mano's directions and took a taxi to the Forest Institute of Malaysia (FRIM), which has a lake said to have a **Finfoot**. The taxi driver turned out to be an ex Royal Signals Corporal who served as a Locally Enlisted Person in Singapore in 1962. After about 20 minutes waiting at the lake the **Masked Finfoot** paddled out of the reeds and we got superb views. We also saw a **Chestnut-winged Cuckoo** *Clamator coromanus*, a new bird for the trip list. We then decided to give lunch a miss and walk up the hill to the Canopy Walk and add another 3 species to our list: **Plaintive Cuckoo** *Cacomantis*

merulinus, **Orange-backed Woodpecker** *Chrysocolaptes validus* and **Crimson-breasted Flowerpecker** *Prionochilus percussus*. In the end we had the taxi for 6 hours which cost 250 Ringits or £40 - well worth it. The afternoon was devoted to shopping but it was difficult to find anything other than electronic goods.

Friday 25th. Up early as we had to be away by 7:15am having had breakfast. We are met by our KL Guide, Nasiah, who took us to Petra Jaya, a brand new town created to house the seat of Government for the State of Malaysia. We stopped at an artificial wetland, the view being somewhat obscured by smog, but we saw **Lesser Tree (Whistling) Ducks** *Dendrocygna javanica*, **Eurasian Coot** *Fulica atra*, a **Purple Swamphen** *Porphyrio porphyrio* and a **Siberian Stonechat** *Saxicola (torquatus) maurus* as new birds on our list. We flew to Langkawi, where we are met by our guide Irshad and driven to the hotel. After dropping off our luggage, we went out and found **Plain-backed Sparrows** *Passer flaveolus* and **Black Drongos** *Dicrurus macrocercus* before driving to a forested mountain called Gurung Raya. Here we saw **Mountain Hawk-Eagle** *Spizaetus nipalensis* and **Jerdon's Baza** *Aviceda jerdoni* as well as **Hornbills**, **Great Buceros bicornis**, **Wreathed Rhyticeros undulatus** and **Oriental Pied Anthracoceros albirostris**; the first two are most impressive birds. Back at the hotel it was a barbecue on the beach.

Saturday 26th. A slightly less rushed start before we headed for Datai Bay. Here we saw a **Greater Flameback Woodpecker** *Chrysocolaptes lucidus* and **Brown-winged Kingfisher** *Halcyon amauroptera*, the latter only occurring in Malaysia on Langkawi. On the way back to the hotel for lunch, we stopped to look at **Chestnut-headed Bee-eaters** *Merops leschenaulti*, another really smart bird. After lunch we boarded a launch on the Kilmin River, where we saw another **Brown-winged Kingfisher** and a mangrove viper *Trimeresurus purpureomaculatus*. We returned to the hotel via a pond that had 225 **Lesser Tree Ducks** and our first **Little Grebe** *Tachybaptus ruficollis* as well as **Yellow Bitterns** *Ixobrychus sinensis*. Our final stop was at the marsh at the Dun Tom Restaurant. This was a cleared area in a reedbed to give an open area. Here we added **Ruddy-breasted Porzana fusca** and **White-browed Porzana cinerea** *Crakes*, as well as **Watercock** *Gallicrex cinerea* and **Peregrine** *Falco peregrinus* to our list. It was dark by the time we got back to the hotel for dinner.

Sunday 27th. We paid an early morning visit to the Dun Tom Restaurant to look over the marsh. The owner was most tolerant of this invasion. We saw all the birds of the previous evening and added 4 new ones to the trip list, which were **Cinnamon Bittern** *Ixobrychus cinnamomeus*, **Slaty-breasted Rail** *Rallus striatus*, **Oriental Reed Warbler** *Acrocephalus orientalis* and **Black-headed Munia** (Chestnut Manakin) *Lonchura malacca*. We also saw a small very dark heron fly off as we arrived, which may have been a **Black Bittern** *Ixobrychus flavicollis*. We returned for a late breakfast and afterwards some walked down the "Creek" near the hotel. We had excellent views of **Collared Kingfishers** *Halcyon chloris* and **Chestnut-headed (Blue-throated) Bee-eaters** *Merops viridis*. We also saw a very large water monitor *Varanus salvator* (c6ft long) eating a dead one, which had been drowned in a fishing net. After lunch some had a very hot walk which produced great views of **Brown Spine-tailed Swifts** *Hirundapus giganteus*, a new one for the trip list. We then returned to the Holiday Villa for a final shower and pack prior to departing. Irshad, our Langkawi Guide, accompanied us to the airport to say goodbye. We had a good flight to Kuala Lumpur and an easy transfer to our Heathrow flight.

Summary. It was an excellent trip during which the group total was 312 species (see Table). No-one saw everything, because jungle birding often provides only fleeting glimpses of a bird in thick cover and someone only a metre away can be completely unsighted. Mano, our guide, proved excellent at locating birds and his knowledge of the calls proved invaluable. Those of us who had not been in Malaysia for some time were amazed by the amount of development that had occurred. Towns and villages had a very modern appearance - the traditional *kampung* with *atap* houses were as rare as thatched cottages are here. The road system was also first class, not a laterite surface in sight!

Ex Brahminy Kite to Malaysia February 2005		14	15	16	17	18	19	20	21	22	23	24	25	26	27
Little Grebe	<i>Tachybaptus ruficollis</i>													1	
Grey Heron	<i>Ardea cinerea</i>	2	1												
Purple Heron	<i>Ardea purpurea</i>	1	20										2	1	1
Great Egret	<i>Ardea alba</i>	3											1		
Little Egret	<i>Egretta garzetta</i>	2	12			1							1	3	2
Chinese Pond-Heron	<i>Ardeola bacchus</i>	3	6			2		1	1	1			20	30+	30+
Cattle Egret	<i>Bubulcus ibis</i>		1			1							20+	50+	
Striated Heron (Little Green)	<i>Butorides striata</i>	10						1	1	2			20+	20+	10
Black-crowned Night-Heron	<i>Nycticorax nycticorax</i>		60												2
Yellow Bittern	<i>Ixobrychus sinensis</i>	1	1										5	2	1
Cinnamon Bittern	<i>Ixobrychus cinnamomeus</i>														1
Black Bittern	<i>Ixobrychus flavicollis</i>														?
Lesser Whistling-Duck	<i>Dendrocygna javanica</i>												5	225	1
Osprey	<i>Pandion haliaetus</i>												1		
Jerdon's Baza	<i>Aviceda jerdoni</i>												1		
Black Baza	<i>Aviceda leuphotes</i>	12									1				
Oriental Honey-buzzard	<i>Pernis ptilorhynchus</i>	1				1			1				1		
Black-shouldered Kite	<i>Elanus caeruleus</i>	3	1											1	
Brahminy Kite	<i>Haliastur indus</i>	30+	1										10	20	10
White-bellied Sea-Eagle	<i>Haliaeetus leucogaster</i>	2											8	8	10
Lesser Fish-Eagle	<i>Ichthyophaga humilis</i> - NT							1	1		1				
Crested Serpent-Eagle	<i>Spilornis cheela</i>	6		1	1	2	1	1		2				2	
Gray-faced Buzzard	<i>Butastur indicus</i>										1				
Eurasian Buzzard	<i>Buteo buteo</i>			1											
Black Eagle	<i>Ictinaea malayensis</i>									1					
Rufous-bellied Eagle	<i>Aquila kienersi</i>									1					
Changeable Hawk-Eagle	<i>Spizaetus cirrhatius</i>	2	2						1						
Mountain Hawk Eagle	<i>Spizaetus nipalensis</i>												1	1	
Blyth's Hawk-Eagle	<i>Spizaetus alboniger</i>		2												
Black-thighed Falconet	<i>Microhierax fringillarius</i>					1			5	4	1				
Eurasian Kestrel	<i>Falco tinnunculus</i>	1													
Peregrine Falcon	<i>Falco peregrinus</i>													1	
Red Junglefowl	<i>Gallus gallus</i>	6											9		
Crested Fireback	<i>Lophura ignita</i> - NT								6	3					
Malayan Peacock-Pheasant	<i>Polyplectron malacense</i>									H					
Crested Argus	<i>Rheinardia ocellata</i> - VUL									H					
Barred Buttonquail	<i>Turnix suscitator</i>		3												
Slaty-breasted Rail	<i>Gallirallus striatus</i>														1
White-breasted Waterhen	<i>Amurornis phoenicurus</i>	1	1			1		1		2		2	4	10	10
Ruddy-breasted Crake	<i>Porzana fusca</i>													3	3
White-browed Crake	<i>Porzana cinerea</i>													2	3
Watercock	<i>Gallixrex cinerea</i>													4	4
Purple Swampfen	<i>Porphyrio porphyrio</i>												6	3	4
Common Moorhen	<i>Gallinula chloropus</i>		1					1						10	10
Eurasian Coot	<i>Fulica atra</i>												10		
Masked Finfoot	<i>Heliopsis personata</i> - VUL							1				1			
Greater Painted-snipe	<i>Rostratula benghalensis</i>													6	4
Gray-headed Lapwing	<i>Vanellus cinereus</i>									1					
Red-wattled Lapwing	<i>Vanellus indicus</i>												10+	12	6
Pacific Golden-Plover	<i>Pluvialis fulva</i>		5												
Little Ringed Plover	<i>Charadrius dubius</i>		2										1	1	3
Swinhoe's Snipe	<i>Gallinago megala</i>		3?												
Common Snipe	<i>Gallinago gallinago</i>												2		
Wood Sandpiper	<i>Tringa glareola</i>												2	3	2
Common Sandpiper	<i>Actitis hypoleucos</i>	4				5				4			1	5	2
Rock Dove	<i>Columba livia</i>														
Spotted Dove	<i>Streptopelia chinensis</i>		?						1			1	25+	8	10
Barred Cuckoo-Dove	<i>Macropygia unchall</i>										2				
Little Cuckoo-Dove	<i>Macropygia ruficeps</i>		3	3	2	2									
Emerald Dove	<i>Chalcophaps indica</i>								1						
Zebra Dove (Peaceful Dove)	<i>Geopelia striata</i>	10	2							1		3	20+	6	10
Little Green-Pigeon	<i>Treron olax</i>									3					
Pink-necked Pigeon	<i>Treron vernans</i>	13	5												1
Thick-billed Pigeon	<i>Treron curvirostra</i>							1		8				1	
Large Green-Pigeon	<i>Treron capellei</i> - VUL				H			5	1						
Yellow-vented Pigeon	<i>Treron seimundi</i>				H										
Green Imperial-Pigeon	<i>Ducula aenea</i>		1												
Mountain Imperial-Pigeon	<i>Ducula badia</i>			5	1	8					2				
Long-tailed Parakeet	<i>Psittacula longicauda</i> - NT	3	1												
Blue-crowned Hanging-Parrot	<i>Loriculus galgulus</i>					2	10	10	10	1					
Chestnut-winged Cuckoo	<i>Clamator coromandus</i>											1			
Large Hawk-Cuckoo	<i>Cuculus sparveroides</i>				?										
Indian Cuckoo	<i>Cuculus micropterus</i>	(1)						H							
Plaintive Cuckoo	<i>Cacomantis merulinus</i>							1				1			
Violet Cuckoo	<i>Chrysococcyx xanthorhynchus</i>					1									
Asian Koel	<i>Eudynamys scolopacea</i>	1						1					2		
Black-bellied Malkoha	<i>Phaenicophaeus diardi</i> - NT					1						1			

Chestnut-bellied Malkoha	<i>Phaenicophaeus sumatranus</i> - NT			H	H				21							
Raffles's Malkoha	<i>Phaenicophaeus chlorophaeus</i>							3	29							
Chestnut-breasted Malkoha	<i>Phaenicophaeus curvirostris</i>								2							
Short-toed Coucal	<i>Centropus rectunguis</i> - VUL						H									
Greater Coucal	<i>Centropus sinensis</i>	H						1	1				1	1	2	
Lesser Coucal	<i>Centropus bengalensis</i>		1													
Collared Owlet	<i>Glaucidium brodiei</i>					H										
Javan Frogmouth	<i>Batrachostomus javensis</i>							1								
Jungle Nightjar	<i>Caprimulgus indicus</i>		2													
Large-tailed Nightjar	<i>Caprimulgus macrurus</i>	6						H		H						
Glossy Swiftlet	<i>Collocalia esculenta</i>	30	30	50	P				10	100+	20					
Black-nest Swiftlet	<i>Aerodramus maximus</i>	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?
Edible-nest Swiftlet	<i>Aerodramus fuciphagus</i>	P?	P?	P?	P?	P?	P?	P?	P?	P?	P?	P?	P?	P?	P?	P?
Silver-rumped Needletail	<i>Rhaphidura leucopygialis</i>						5	10	6	20	10	10				
Brown-backed Needletail	<i>Hirundapus giganteus</i>															20
Asian Palm-Swift	<i>Cypsiurus balasensis</i>	1														
Fork-tailed Swift	<i>Apus pacificus</i>				4					50						
House Swift	<i>Apus affinis</i>	50	50	P	P	P		P	30	500	100	12	12	12		
Gray-rumped Treeswift	<i>Hemiprocne longipennis</i>							6	10	50	20					
Whiskered Treeswift	<i>Hemiprocne comata</i>					5			1	6	6					
Cinnamon-rumped Trogon	<i>Harpactes orrhophaeus</i> - NT							H								
Scarlet-rumped Trogon	<i>Harpactes duvaucelii</i> - NT								1							
Red-headed Trogon	<i>Harpactes erythrocephalus</i>		1													
Orange-breasted Trogon	<i>Harpactes oreskios</i>									1	1					
Common Kingfisher	<i>Alcedo atthis</i>	2					1		1			1	1	4	2	
Blue-eared Kingfisher	<i>Alcedo meninting</i>								1	1						
Blue-banded Kingfisher	<i>Alcedo euryzona</i> - VUL								1	1						
Brown-winged Kingfisher	<i>Pelargopsis amauropterus</i> - NT													2		
Stork-billed Kingfisher	<i>Pelargopsis capensis</i>							2	3	2		1				
White-throated Kingfisher	<i>Halcyon smymensis</i>	10	10			10			1	20		1	20+	15	8	
Black-capped Kingfisher	<i>Halcyon pileata</i>	4	1						1	5				5		
Collared Kingfisher	<i>Todirhamphus chloris</i>	2												H	2	
Red-bearded Bee-eater	<i>Nyctornis amictus</i>				2											
Blue-throated Bee-eater	<i>Merops viridis</i>	10				10		630	10			3		50		
Blue-tailed Bee-eater	<i>Merops philippinus</i>	10	50			2						10		10		
Chestnut-headed Bee-eater	<i>Merops leschenaulti</i>													8	6	
Dollarbird	<i>Eurystomus orientalis</i>	1				3	1		6	6				12	1	
Oriental Pied-Hornbill	<i>Anthraceroceros albirostris</i>					1	1	1	1	2			3	5	9	
Black Hornbill	<i>Anthraceroceros malayanus</i> - NT							H		1						
Rhinoceros Hornbill	<i>Buceros rhinoceros</i> - NT					H	4		2							
Great Hornbill	<i>Buceros bicornis</i> - NT								H				6			
Wreathed Hornbill	<i>Aceros undulatus</i>							1					6	1		
Fire-tufted Barbet	<i>Psilopogon pyrolophus</i>	3	2			6										
Gold-whiskered Barbet	<i>Megalaima chrysopogon</i>				2	1	2	H	H	2	1					
Red-crowned Barbet	<i>Megalaima rafflesii</i> - NT									1						
Red-throated Barbet	<i>Megalaima mystacophanos</i> - NT					H	H	H	1	1	H					
Golden-throated Barbet	<i>Megalaima franklinii</i>															
Black-browed Barbet	<i>Megalaima oorti</i>		1	10	10						H					
Yellow-crowned Barbet	<i>Megalaima henrici</i> - NT							H	H	1	H					
Blue-eared Barbet	<i>Megalaima australis</i>	1						H	H	H						
Coppersmith Barbet	<i>Megalaima haemacephala</i>	1														
Brown Barbet	<i>Calorhamphus fuliginosus</i>				1											
Speckled Piculet	<i>Picumnus innominatus</i>		1	1												
Brown-capped Woodpecker	<i>Dendrocopos moluccensis</i>	6														
Gray-capped Woodpecker	<i>Dendrocopos canicapillus</i>	1														
Rufous Woodpecker	<i>Celeus brachyurus</i>		2							2						
Banded Woodpecker	<i>Picus mineaceus</i>								1	1	1					
Lesser Yellownape	<i>Picus chlorolophus</i>		1	1												
Crimson-winged Woodpecker	<i>Picus puniceus</i>								2		2					
Greater Yellownape	<i>Picus flavinucha</i>			1												
Streak-breasted Woodpecker	<i>Picus viridanus</i>							1								
Laced Woodpecker	<i>Picus vittatus</i>	1														
Common Flameback	<i>Dinopium javanense</i>	2					3									
Greater Flameback	<i>Chrysocolaptes lucidus</i>														1	
Orange-backed Woodpecker	<i>Reinwardtipicus validus</i>											4				
Buff-rumped Woodpecker	<i>Meiglyptes tristis</i>				1					1	2					
Great Slaty Woodpecker	<i>Mulleripicus pulverulentus</i>						1							H		
Black-and-red Broadbill	<i>Cymbirhynchus macrorhynchus</i>						1		2							
Banded Broadbill	<i>Eurylaimus javanicus</i>										2	1				
Black-and-yellow Broadbill	<i>Eurylaimus ochromalus</i> - NT											1				
Long-tailed Broadbill	<i>Psarisomus dalhousiae</i>		1													
Silver-breasted Broadbill	<i>Serilophus lunatus</i>		3							2	12					
Green Broadbill	<i>Calptomena viridis</i> - NT						1									
Banded Pitta	<i>Pitta guajana</i>						1	H								
Bank Swallow	<i>Riparia riparia</i>				2									1		
Barn Swallow	<i>Hirundo rustica</i>	P	P	P	P	P	P			10	50				16	4
Pacific Swallow	<i>Hirundo tahitica</i>	P	P	P	P	P	20		100	500	500	50	P	P	25	
Striated Swallow	<i>Hirundo striolata</i>		P							10	1		30	6		

Asian Martin	<i>Delichon dasypus</i>				3											
Forest Wagtail	<i>Dendronanthus indicus</i>												1			
Grey Wagtail	<i>Motacilla cinerea</i>		2	1	3	1	4		2		1				4	2
Richard's Pipit (Paddyfield)	<i>Anthus novarseelandiae</i>	2	20	3					3	1			7	9		
Javan Cuckoo-shrike	<i>Coracina javensis</i>	2		10												
Pied Triller	<i>Lalage nigra</i>	1														
Ashy Minivet	<i>Pericrocotus divaricatus</i>								1	3		2			12	
Scarlet Minivet	<i>Pericrocotus flammeus</i>				2	4										
Gray-chinned Minivet	<i>Pericrocotus solaris</i>			10	20	30										
Bar-winged Flycatcher-shrike	<i>Hemipus picatus</i>				3	2										
Black-winged Flycatcher-shrike	<i>Hemipus hirundinaceus</i>										1					
Straw-headed Bulbul	<i>Pycnonotus zeylanicus</i> - VUL						4			1						
Black-and-white Bulbul	<i>Pycnonotus melanocephalus</i> - NT								1							
Black-headed Bulbul	<i>Pycnonotus atriceps</i>					4		30	10		2			2		
Black-crested Bulbul	<i>Pycnonotus melanicterus</i>		1	1	2	2	2		2	20						
Scaly-breasted Bulbul	<i>Pycnonotus squamatus</i> - NT									1						
Puff-backed Bulbul	<i>Pycnonotus eutilotus</i> - NT				2	2	1	3								
Stripe-throated Bulbul	<i>Pycnonotus finlaysoni</i>					4	2	3								
Yellow-vented Bulbul	<i>Pycnonotus goiavier</i>	30	P	3		2		2	3	1	12	10	20	12		
Cream-vented Bulbul	<i>Pycnonotus simplex</i>					2										
Red-eyed Bulbul	<i>Pycnonotus brunneus</i>					1		2		2	1	1	1	2		
Spectacled Bulbul	<i>Pycnonotus erythrophthalmos</i>		1													
Finsch's Bulbul	<i>Alophoixus finschii</i> - NT					3	2									
Ochraceous Bulbul	<i>Alophoixus ochraceus</i>		1		2	3										
Yellow-bellied Bulbul	<i>Alophoixus phaeocephalus</i>					2										
Hairy-backed Bulbul	<i>Tricholestes criniger</i>				2	2	2	3								
Buff-vented Bulbul	<i>Iole olivacea</i> - NT					2	2	3								
Streaked Bulbul	<i>Ixos malaccensis</i> - NT						2	3								
Mountain Bulbul	<i>Ixos mcclllandii</i>		10	6												
Ashy Bulbul	<i>Ixos flavala</i>									2						
Greater Green Leafbird	<i>Chloropsis sonnerati</i>					1				2						
Lesser Green Leafbird	<i>Chloropsis cyanopogon</i> - NT					1				2						
Blue-winged Leafbird	<i>Chloropsis cochinchinensis</i>			1	2		4	1	1	6	2					
Orange-bellied Leafbird	<i>Chloropsis hardwickii</i>		2	5	2											
Common Iora	<i>Aegithina tiphia</i>	2														
Malayan Whistling-Thrush	<i>Myophonus robinsoni</i> - Endemic VUL			1												
Lesser Shortwing	<i>Brachypteryx leucophrys</i>		1	H	1											
Zitting Cisticola	<i>Cisticola juncidis</i>	1														
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	2	1													
Oriental Reed-Warbler	<i>Acrocephalus orientalis</i>														10	
Mountain Tailorbird	<i>Orthotomus cuculatus</i>		2	2												
Common Tailorbird	<i>Orthotomus sutorius</i>	2		1	4			2	1							
Dark-necked Tailorbird	<i>Orthotomus atrogularis</i>			2			2	H	1					6		
Rufous-tailed Tailorbird	<i>Orthotomus sericeus</i>						H	H	H							
Ashy Tailorbird	<i>Orthotomus ruficeps</i>	2														
Yellow-browed Warbler	<i>Phylloscopus inornatus</i>				1											
Arctic Warbler	<i>Phylloscopus borealis</i>			1	2		1		1					1		
Mountain Warbler	<i>Phylloscopus trivirgatus</i>		4	1						3						
Chestnut-crowned Warbler	<i>Seicercus castaneiceps</i>			1	1											
Yellow-breasted Warbler	<i>Seicercus montis</i>			1												
Yellow-bellied Warbler	<i>Abroscopus superciliosus</i>			4												
Asian Brown Flycatcher	<i>Muscicapa dauurica</i>		3	3	4	2	1	2		1		1				
Ferruginous Flycatcher	<i>Muscicapa ferruginea</i>				1	1										
Korean Flycatcher	<i>Ficedula zanthopygia</i>									1	1					
Mugimaki Flycatcher	<i>Ficedula mugimaki</i>			1	1											
Little Pied Flycatcher	<i>Ficedula westermanni</i>		2	3	3						1					
Verditer Flycatcher	<i>Eumyias thalassina</i>			1												
Large Niltava	<i>Niltava grandis</i>			1	2						1					
Hill Blue-Flycatcher	<i>Cyornis banyumas</i>			2												
Malaysian Blue-Flycatcher	<i>Cyornis turcosus</i> - NT						1		1							
Gray-headed Canary-flycatcher	<i>Culicicapa ceylonensis</i>								1							
Oriental Magpie-Robin	<i>Copsychus saularis</i>	5	6	6	2	10	10	10	10	10	20	10	8	8		
White-rumped Shama	<i>Copsychus malabaricus</i>						1	H	2	1	2	1		H		
Chestnut-naped Forktail	<i>Enicurus ruficapillus</i> - NT										1					
Slaty-backed Forktail	<i>Enicurus schistaceus</i>			4												
Siberian Stonechat	<i>Saxicola maura</i>												2			
White-throated Fantail	<i>Rhipidura albicollis</i>			2	2	3										
Pied Fantail	<i>Rhipidura javanica</i>	2							1							
Black-naped Monarch	<i>Hypothymis azurea</i>						2	2								
Asian Paradise-Flycatcher	<i>Terpsiphone paradisi</i>						H	2								
Black Laughingthrush	<i>Garrulax lugubris</i>				2											
Chestnut-capped Laughingthrush	<i>Garrulax mitratus</i>		10	20	12											
Chestnut-crowned Laughingthrush	<i>Garrulax erythrocephalus</i>		2	3												
Abbott's Babbler	<i>Malacocincla abbotti</i>	2						2								
Short-tailed Babbler	<i>Malacocincla malaccensis</i> - NT								4							
Buff-breasted Babbler	<i>Pellorneum tickelli</i>						1			1						
Black-capped Babbler	<i>Pellorneum capistratum</i>								1							
Moustached Babbler	<i>Malacopteron magnirostre</i>							1								

Sooty-capped Babbler	<i>Malacopteron affine</i> - NT									5						
Scaly-crowned Babbler	<i>Malacopteron cinereum</i>							1								
Rufous-crowned Babbler	<i>Malacopteron magnum</i> - NT							1								
Striped Wren-Babbler	<i>Kenopia striata</i> - NT						H		1							
Pygmy Wren-Babbler	<i>Pnoepyga pusilla</i>		1													
Rufous-fronted Babbler	<i>Stachyris ruffrons</i>		1													
Golden Babbler	<i>Stachyris chrysaea</i>		2													
Gray-throated Babbler	<i>Stachyris nigriceps</i>					1										
Gray-headed Babbler	<i>Stachyris poliocephala</i>							1				2				
Chestnut-winged Babbler	<i>Stachyris erythroptera</i>							10	5	5						
Striped Tit-Babbler	<i>Macronous gularis</i>								5		1				2	
Fluffy-backed Tit-Babbler	<i>Macronous pilosus</i> - NT								2							
Silver-eared Mesia	<i>Leiothrix argentauris</i>	6	20	22					2							
Cutia	<i>Cutia nipalensis</i>		2													
White-browed Shrike-Babbler	<i>Pteruthius flaviscapis</i>	2	4	5							1					
Black-eared Shrike-Babbler	<i>Pteruthius melanotis</i>	2		5												
Blue-winged Minla	<i>Minla cyanouroptera</i>		30													
Brown Fulvetta	<i>Alcippe brunneicauda</i> - NT			10												
Mountain Fulvetta	<i>Alcippe peracensis</i>	1	4	2												
Long-tailed Sibia	<i>Heterophasia picaoides</i>	20	20	50												
White-bellied Yuhina	<i>Yuhina zantholeuca</i>		1							1						
Golden-bellied Gerygone	<i>Gerygone sulphurea</i>	2														
Great Tit	<i>Parus major</i>	4														
Sultan Tit	<i>Melanochlora sultanea</i>			2							6					
Velvet-fronted Nuthatch	<i>Sitta frontalis</i>						1			1						
Blue Nuthatch	<i>Sitta azurea</i>		2	4												
Ruby-cheeked Sunbird	<i>Chalcoparia singalensis</i>							1								
Plain Sunbird	<i>Anthreptes simplex</i>	1														
Plain-throated Sunbird	<i>Anthreptes malacensis</i>	20												4	4	
Red-throated Sunbird	<i>Anthreptes rhodolaema</i> - NT	1						1								
Purple-naped Sunbird	<i>Hypogramma hypogrammicum</i>							1			1					
Purple-throated Sunbird	<i>Leptocoma sperata</i>														1	
Olive-backed Sunbird	<i>Cinnyris jugularis</i>	2														
Black-throated Sunbird	<i>Aethopyga saturata</i>		1	7	10	1										
Crimson Sunbird	<i>Aethopyga siparaja</i>														2	
Thick-billed Spiderhunter	<i>Arachnothera crassirostris</i>								2	1						
Spectacled Spiderhunter	<i>Arachnothera flavigaster</i>							1	2	1						
Long-billed Spiderhunter	<i>Arachnothera robusta</i>							1	2	2						
Yellow-eared Spiderhunter	<i>Arachnothera chrysogenys</i>							1								
Grey-breasted Spiderhunter	<i>Arachnothera affinis</i>					2										
Streaked Spiderhunter	<i>Arachnothera magna</i>	3	10	10	5						2					
Yellow-breasted Flowerpecker	<i>Prionochilus maculatus</i>	1														
Crimson-breasted Flowerpecker	<i>Prionochilus percussus</i>											1				
Thick-billed Flowerpecker	<i>Dicaeum agile</i>							5								
Yellow-vented Flowerpecker	<i>Dicaeum chrysorrheum</i>					1										
Orange-bellied Flowerpecker	<i>Dicaeum trigonostigma</i>					4		2			2				4	
Fire-breasted Flowerpecker	<i>Dicaeum ignipectus</i>		1	1												
Scarlet-backed Flowerpecker	<i>Dicaeum cruentatum</i>	2													1	
Everett's White-eye	<i>Zosterops everetti</i>										5					
Dark-throated Oriole	<i>Oriolus xanthonotus</i> - NT								1							
Black-naped Oriole	<i>Oriolus chinensis</i>	P	H				1					10	15	10		
Black-and-crimson Oriole	<i>Oriolus cruentus</i>		3	10		1										
Asian Fairy-bluebird	<i>Irena puella</i>						3	5	10	2						
Tiger Shrike	<i>Lanius tigrinus</i>				1	1				1		1				
Brown Shrike	<i>Lanius cristatus</i>	3	3											15	6	
Long-tailed Shrike	<i>Lanius schach</i>		2													
Large Woodshrike	<i>Tephrodornis gularis</i>										1					
Rufous-winged Philentoma	<i>Philentoma pyropterum</i>								1							
Maroon-breasted Philentoma	<i>Philentoma velatum</i> - NT								1							
Black Drongo	<i>Dicrurus macrocercus</i>													25		
Ashy Drongo	<i>Dicrurus leucophaeus</i>	1														
Bronzed Drongo	<i>Dicrurus aeneus</i>			15	6	2			1							
Lesser Racket-tailed Drongo	<i>Dicrurus remifer</i>	3		15	4											
Greater Racket-tailed Drongo	<i>Dicrurus paradiseus</i>				2	1	5		1	1		1		3		
Crested Jay	<i>Platylophus galericulatus</i> - NT								H	2						
Green Magpie	<i>Cissa chinensis</i>			1												
House Crow	<i>Corvus splendens</i>	P							3		15	15				
Large-billed Crow	<i>Corvus macrorhynchos</i>	15	3	1	6	6		1	2	6	6	4		2		
Asian Glossy Starling	<i>Aplonis panayensis</i>	2	100+			1			6	1		10	P		4	
Common Hill Myna	<i>Gracula religiosa</i>	1												4	4	
Common Myna	<i>Acridotheres tristis</i>	P	P	6		6	1		4	4	100	10	P	P	P	
Javan Myna	<i>Acridotheres javanicus</i>	10	10									4	6			
Baya Weaver	<i>Ploceus philippinus</i>	2										1	1		3	
White-rumped Munia	<i>Lonchura striata</i>									10					8	
Nutmeg Mannikin	<i>Lonchura punctulata</i>	2								10	6	4	20+	4	2	
Chestnut Munia	<i>Lonchura atricapilla</i>														50+	
White-headed Munia	<i>Lonchura maja</i>										1					
Plain-backed Sparrow	<i>Passer flaveolus</i>													3		
Eurasian Tree Sparrow	<i>Passer montanus</i>	P	20				1	2	1	2	10	10	10	20	20	6
312 Species	NT = Near-threatened, VUL = Vulnerable, H = Heard, P = Present/Many															

Future Events

Army Ornithological Society Forecast of Expeditions and Field Days

Expedition/Field Trip	Dates	Organizer	Details	Telephone
2006				
Scottish Highlands and East Coast.	07- 09 Jul	David Vaughan	Osprey, Divers, Capercaillie, Crested Tit and S Crossbill	01264 382972 (D)
Portland Bird Observatory (Field W/E)	06-07 Oct	Hilary Nash	Details later but to follow pattern of previous visits.	01252 863486 (D)
The Wirral (Field W/E)	End Oct	Rodney Walker	Day and a half on the Dee Estuary and surrounding areas.	walkerrodneyc@yahoo.co.uk
Diego Garcia (Fortnight Survey with RNBWS)	01-18 Nov	Pete Carr	Joint survey to Chagos Islands. Possibly only serving AOS.	Details through David Vaughan
2007				
Costa Rica	TBC	Tim Hallchurch		
AGM Castlemartin	May	Hon Sec		
2008				
Central Asia	TBC	Tim Hallchurch		

RAFOS Expedition and Field Activities Plan

2006	Date	Venue	Leader(s)	Notes
1	8 Jan	WWT Slimbridge	Bill Francis	Guided Tour of the Wildfowl Centre.
2	3-12 Feb	Winter Duck 5 Scotland	John Wells	BTO/RSPB/WWT/JNCC
3	2 Apr	Chew Valley	Anne & Dave Bodley	Meet at the CVRS Hut
4	24-28 Apr	Burnham Overy	Mike Hayes	East Anglian spectacular
5	6-13 May	Islay Mist	Bill Francis	Bird migration & survey
6	31 May-26 Jun	SlovRecce06	Mike Blair	Slovakia reconnaissance for SlovEx07
7	22-29 Jul	Sanda Island	George Candelin	Bird ringing & survey work
8	Sep	Catterick	Tony Crease & Colin Wearn	Ringling Course
9	Sep	GibEx06	Mike Blair, George Candelin	Seabird migration obs & survey
10	29 Sep - 1 Oct	Portland Bill Dorset	Anne & Dave Bodley	Bird migration obs
11	Oct / Nov	Cornish Chough	Jim Bryden, Martin Wightman	General obs & survey
12	Nov	Chew Valley	Anne & Dave Bodley	CVL Survey
13	Nov	Slimbridge	TBN	Post AGM Field Trip
2007	Date	Venue	Leader(s)	Notes
1	Jan	WWT Slimbridge	Bill Francis	Guided Tour of the Wildfowl Centre.
2	Feb	Winter Duck 6 Scotland	TBN	BTO/RSPB/WWT/JNCC
3	Feb - Mar	Burnham Overy	Mike Hayes	East Anglian spectacular
4	Apr	Chew Valley	Anne & Dave Bodley	Meet at the CVRS Hut
5	May - Jun	SlovEx07	Mike Blair, Dick Yates	Slovakia - Bird survey, possibly ringing
6	Aug	Catterick	Tony Crease & Colin Wearn	Ringling Course
7	Oct	Portland Bill Dorset	Anne & Dave Bodley	Bird migration viewing from the Observatory
8	Oct	Cornish Chough	Jim Bryden, Martin Wightman	General obs & survey
9	Oct	Islay Mist	Bill Francis	18 month rotation.
10	Nov	Chew Valley	Anne & Dave Bodley	CVL Survey
11	Nov	TBN	TBN	Post AGM Field Trip
2008	Date	Venue	Leader(s)	Notes
1	Jan	WWT Slimbridge	Bill Francis	Guided Tour of the Wildfowl Centre.
2	Feb	Winter Duck 7 Scotland	TBN	BTO/RSPB/WWT/JNCC
3	Apr	Chew Valley	Anne & Dave Bodley	Meet at the CVRS Hut
4	Feb-Mar? Sep?	Burnham Overy	Mike Hayes	Dates TBN after success of 2007 gauged
5	May	Sanda Island	George Candelin	Did we agree a repeat yet?
6	Apr	Cyprus	Dick Yates	Bird survey and ringing (Pty 1)
or 6	May - Jun	GibEx08	Mike Blair & George Candelin	18 month rotation (Pty 2)
or 6	May - Jun	Location TBN	TBN	BTO Breeding Bird Atlas Survey (Pty 1)
7	Aug	Catterick	Tony Crease & Colin Wearn	Ringling Course
8	Oct	Portland Bill Dorset	Anne & Dave Bodley	Migration viewing from the Observatory
9	Oct	Cornish Chough	Jim Bryden, Martin Wightman	General obs & survey
10	Nov	Chew Valley	Anne & Dave Bodley	CVL Survey
11	Nov	TBN	TBN	Post AGM Field Trip

Bird Gallery



Blue-tailed Bee-eater *Merops philippinus*, Singapore 1965. © Dave Greasley.



Great Grey Owl *Strix nebulosa*, Edmonton, Canada, 28 May 05 © Tim Cowley.



European Bee-eater *Merops apiaster*, Akrotiri, Cyprus, Sep 05. © Jason Wilson.



Forest Wagtail *Dendronanthus indicus*, Singapore 1965. © Dave Greasley.