

The Newsletter of the Middle East Falcon Research Group Issue No. 39 Spring 2012 ISSN 1608-1544

Objectives of the MEFRG (www.mefrg.org):

Provide a forum for information exchange on matters relating to falcons and falconry in the Middle East

Promote and/or improve the understanding of:

- The cultural heritage of Arabic falconry
- The utilisation and management of quarry species
- The conservation of wild falcons used in Arabic falconry
- The management of falcons in falconry
- Advances in veterinary and aviculture care of falcons
- International issues impacting on, or arising from, Arabic falconry

The objectives of the MEFRG will be achieved by

- Holding regional workshop meetings and international conferences
- Publishing and distributing a paper and electronic Newsletter (**FALCO**) on issues of common interest to the MEFRG
- Coordinating and hosting a website and maintaining an online subscribers database

We welcome the submission of articles for **FALCO**. Please bear in mind that **FALCO** is not a scientific journal and we would like authors to remember that articles should be accessible to a diverse readership comprising falconers, biologists, veterinarians and policy makers. We are interested in authoritative, accurate and informative articles related to the subject areas listed below

Falconry

articles about the practice of falconry of interest and relevance to Arab falconers

Falconry Heritage

articles about Falconry Heritage of interest and relevance to Arab falconers

Quarry Management

articles on the conservation and management of quarry species utilised in Arab Falconry or of interest to Arab falconers

Raptor Conservation

articles on the conservation and management of raptors used in Arabic falconry, but also more generally of any raptors the Middle East

Avian Health and Management

articles on veterinary and avicultural issues specifically originating from work carried in the Middle East, but external studies that are relevant to improving the health of raptors in the Middle East will be considered

Research Biology

articles on biological research of falcons used in Arabic falconry, to cover issues such as migration, taxonomy, genetic research etc.

International Issues

articles and updates on international policy decisions and discussions relating to falconry, conservation, trade and animal health that is of relevance and interest to Arabic falconry.

Public Aawareness and Education

articles on initiatives that can contribute to a better understanding of Arabic falconry and the wider issues surrounding it

Technical Updates

reviews and updates on new products/equipment etc. that may be useful for biologists, falconers and vets working with raptors

Photo Section

interesting images of relevance to subjects covered by the MEFRG

Raptors in the News

summary of recent press releases relating to subjects covered by the MEFRG

What's New in the Literature

Review of recently published scientific literature relevant to the objectives of the MEFRG

We also accept and publish Book Reviews and Letters. If you are in doubt about whether or not an article fits any of the above categories please contact the editors:

Dr. Tom Bailey (Email: tom@falcons.co.uk) or Dr. Andrew Dixon (Email: falco@falcons.co.uk)

International Wildlife Consultants Ltd.,

PO Box 19, Carmarthen, SA33 5YL, United Kingdom Tel: (0044) 1267 233864; Website: **www.falcons.co.uk**

Editorial

We have made a few design changes in this new issue of *Falco* and we are still in a process of reviewing the role of the Middle East Falcon Research Group (MEFRG) at the present time. The MEFRG was established in 1994 primarily to coordinate collaboration between biologists & veterinarians in the Middle East for a falcon microchipping scheme. This decade-long

project ended in 2002, yet the MEFRG continued to exist in name and to publish *Falco*. Since 2002 the MEFRG has focussed on being a forum for information exchange about falconry related

issues in the Middle East between vets, biologists, falconers, conservationists and policy makers. The issues covered by *Falco* are diverse, ranging from the 'micro' (e.g., specific falcon diseases) to the 'macro' (e.g., global conservation issues). We see *Falco* as a "window" to look "out" and "in" at Arabic falconry and issues surrounding it, providing falconers in the Middle East with an insight into the wider issues surrounding Arabic falconry and its cultural significance.

Over the last decade Saker conservation has been the subject of international concern, firstly through CITES with the Significant Trade Review in 2003, then in the IUCN Red List with Endangered status listing in 2004 and latterly in CMS with the first proposal for Appendix I listing in 2008. We provide an overview of these international developments in this issue of Falco. In tandem with this increasing level of international concern we have seen a series of "extra-curricular" meetings convened, including the 'Consultative Meeting on Trade in Falcons for Falconry' and the 'CITES Falcon Enforcement Task Force Meeting' both held in Abu Dhabi in 2004 and 2005 respectively to focus on CITES issues, and the 'Specialist Meeting on the Conservation of the Saker Falcon' held in Abu Dhabi 2009 to focus on CMS issues. Abu Dhabi seems to be the favoured place to host these meetings as the most recent 'extra-curricular' gathering, the first meeting of the 'Saker Falcon Task Force' under the auspices of CMS, was also held in Abu Dhabi in March 2012.

The purpose of the Saker Falcon Task Force is to "develop a coordinated Global Action Plan, including a management and monitoring system, to conserve the Saker Falcon". A regional Single Species Action Plan already exists for the Saker Falcon in the European Union and expanding the region of coverage in a new Global Action Plan will necessarily mean that a variety of approaches to Saker conservation will need

to be adopted, including those based on sustainable use. At present it appears as though the Saker Task Force will primarily focus on delivering an Action Plan to determine what conservation actions are required rather than overseeing the implementation of 'concerted actions' as suggested in the CMS resolution that created the Task Force. The success of the Saker Task Force beyond the production of a Global Action Plan is going to be dependent on the level of funding it can obtain, the degree of engagement by range states and its credibility among stakeholders with an interest in Saker conservation and trade.

> With the focus being on wild falcon populations it is important not to forget that much work is being done in the Middle East and beyond in relation to promoting captive breeding and improving husbandry and falcon health care as a means to

reducing demand for wild falcons. In this issue we report on two studies relating to Avian Health and Management, which have important implications for captive falcons.

An appeal for contributions

In this issue of Falco five of the seven main articles have been written or co-authored by staff at International Wildlife Consultants Ltd. This is not something we purposely set out to do – instead we would like to have a wider range of contributors for future issues. We recognize that the subject areas covered by Falco, whilst often contentious, are nonetheless specialized and narrow in their scope, but each subscriber (and there are currently nearly 300) will have a specific area of interest and we would like to see more MEFRG subscribers share their opinions, experience and knowledge through Falco. We can accommodate articles written in Arabic and English that fit within the subject areas listed opposite.

Research Biology

The subspecies and migration of breeding Peregrines in northern Eurasia

Andrew Dixon¹, Aleksandr Sokolov² and Vasiliy Sokolov³

¹International Wildlife Consultants Ltd, PO Box 19, Carmarthen, SA33 5YL, United Kingdom (Email: falco@falcons.co.uk)

²Ecological Research Station of Institute of Plant and Animal Ecology, Ural Division Russian Academy of Sciences, 21 Zelenaya Gorka, Labytnangi, Yamalo-Nenetski District, 629400, Russia.

³Institute of Plant and Animal Ecology, Ural Division Russian Academy of Sciences, 202-8 Marta Street, Ekaterinburg, 620144, Russia.

Introduction

In early 2008 our sponsors in Abu Dhabi wanted to initiate a study on the migratory Peregrines of northern Eurasia, as these falcons, together with Sakers, were traditionally caught on autumn passage for use in Arabic falconry. They were interested to know where the Peregrines came from, how their breeding populations were faring and if differences in size and plumage related to the natal origin of the birds. After the initial discussions, we developed a detailed project proposal to address these and other questions over a five-year field project (2009-13) based at five study areas across the Siberian tundra (Map 1).



Map 1 showing the location of our five study areas across northern Eurasia, with one study site being visited each year (2009: Yamal Peninsula; 2010: Lena Delta; 2011: Eastern Taimyr; 2012: Kola Peninsula; 2013: Kolyma Delta). In each area the objective is to fit satellite tags to Peregrines and collect samples for genetic population analysis.

Our sponsors were particularly interested in the size and plumage characteristics of the migratory Peregrines that reach the Arabian Peninsula, as the origin of these birds is a topic of much discussion among falconers in the region. Like falconers, taxonomists have long debated subtle differences in the characteristics of Peregrines and have attempted to allocate these variants to geographic regions as named sub-species. And, just like falconers, the taxonomists never agree, so there is no consensus on how many recognizable subspecies there are across the global breeding range of the Peregrine, or even on whether or not some of these distinct types should actually be recognized as separate species.

Current taxonomic opinion suggests that perhaps three Peregrine subspecies (*peregrinus, calidus* and *japonensis*) breed across the 7,500 km of Siberian tundra that stretches from Lapland to the Bering Sea; with *peregrinus* in the west, grading into *calidus* beyond the White Sea and grading from *calidus* to *japonensis* in the east beyond the Lena Delta. The southern limits of the breeding range are not certain but extend at least to the forested tundra.

A brief taxonomic history of northern Eurasian Peregrines

Theodore Pleske (1925) stated that "there may be a certain difference between the Peregrine Falcons that inhabit the western part of the Eurasian tundra as far as the Lena region, and those of the eastern part". He considered the western form to be *griseiventris* (meaning "grey-bellied"), which was first described by Brehm in 1833 from an adult male collected in Germany during October. Pleske regarded this form as "representative of the Peregrine Falcon characteristic of the tundra zone". Pleske considered the Peregrines of the eastern Eurasian tundra to be *peregrinus*, in contrast to Sergei Buturlin (1907), who regarded Peregrines from "the Lower Lena to Anadyr" to be distinct and he named this taxon *Falco peregrinus harterti*, based on specimens he collected during his expedition to the region in 1905-06.

Another renowned Russian ornithologist to tackle the taxonomy of Eurasian Peregrines was Georgii Dement'ev. Dement'ev considered Buturlin's *harterti* to be synonymous with *leucogenys* (meaning "white cheeked"), first described by Brehm (1854) from a male shot in Germany during October. Dement'ev also considered *leucogenys* synonymous with *calidus*, a taxon first described by the English naturalist John Latham in 1790, based on a migrant bird collected in India. The name *leucogenys* was given precedence

Some notable figures in Eurasian Peregrine taxonomy



over *calidus* by Russian taxonomists on the basis that the description of the latter was considered inadequate and was of an unpreserved migrant specimen.

The American taxonomist Charles Vaurie (1961) also considered *leucogenys* to be synonymous with *calidus*, though he gave priority to the earlier name coined by Latham. Subsequently, English-speaking ornithologists have tended to refer to *calidus* when discussing the tundra Peregrines of Eurasia, whilst Russian-speaking colleagues mainly refer to them as *leucogynys*. In contrast to Dement'ev, Vaurie also maintained the east-west split of tundra Peregrines favoured by Buturlin, though he preferred the name *japonensis* for the eastern form and regarded it as synonymous with Buturlin's *harterti*. The type specimen of *japonensis*, described by Gmelin 1788, was based on a migrant which "flew on board off Japan" during Capt. James Cook's last voyage in the North Pacific.

Leonid Portenko (1981) responded with his own analysis based on more material than was available to Vaurie. Portenko considered *leucogynys* to be the form nesting on tundra from Nova Zemlya eastwards to the Yana River, where it was encountered along with the eastern-tundra form *harterti*, which bred eastwards to the Bering Sea. Portenko's analysis essentially retained John Latham (1740-1837) published a description of *calidus* in his Index Ornithologicus (1790), based on a migratory specimen collected in India.

Sergei Buturlin (1872-1938), named the Peregrines found during his 1905-06 expedition to the Lena, Anadyr and Kolyma river deltas, as *harterti,* in recognition of Ernst Hartert, the renowned German taxonomist.

Georgii Petrovich Dement'ev (1898-1969), editor and a co-author of Birds of the Soviet Union (1951–54), was particularly fascinated by falcons and their taxonomy, and he 'lumped' all the tundra Peregrines under the name *leucogenys*.

Charles Vaurie (1906-1975) discussed the taxonomy of Eurasian Peregrines in detail in No. 44 of his 53-publication series "Systematic Notes on Palearctic Birds" in 1961.

the same geographical divisions adopted by Vaurie for the northern forms of Eurasian Peregrines but he opted to use the names favoured by Russian colleagues. Most recently, Stepanyan (2004) has adopted the name *calidus* in preference to *leucogynys* but he has retained *harterti*, which he treats as distinct from the more southerly *japonensis*.

The western limit of *calidus* has received little attention but Galushin (2009) considered that the birds occupying the Kola Peninsula were of the nominate race *peregrinus*, whilst those further east on the Kanin Peninsula were more typical of *calidus*. The validity of this distinction is debatable as calidus differs only slightly from peregrinus by being generally paler and by averaging slightly larger. Vaurie (1961) considered *calidus* to be highly migratory, whereas he regarded *peregrinus* as sedentary, or only exhibiting limited migratory movements. This biological distinction prompted Vaurie to state, "I grant that calidus is not well differentiated morphologically, but, under the circumstances, it seems desirable to acknowledge the validity of *calidus* on slighter morphological grounds than would otherwise be acceptable." Nevertheless, despite the fact that many specimens cannot be identified with certainty, typical specimens of *calidus* can be distinguished from typical specimens of *peregrinus* by the colour of the upper parts, especially the crown which is more greyish blue, less slaty and blackish; the under parts of typical *calidus* are also less heavily barred on a whiter background, and the black areas on the face are more restricted. As for *japonensis*, Vaurie described this race as darker than *calidus* and noted that the population inhabiting northern Eurasia was migratory. Portenko gave a little more detail in his description of the synonymous *harterti* stating that the crown, nape and back were more slate than grey, whilst the white area of the cheek was smaller than in *leucogenys/calidus* and the underparts were yellowish white with bigger, darker spots and broader barring.

Migration

Peregrines occupying the Eurasian tundra are highly migratory and they winter south to the Europe, the Mediterranean Basin, tropical and southern Africa, former soviet Central Asian states, Iran, Arabia, India east to Assam, Phillipines, Hainan, Indo-China and Malay Peninsula, Andaman Islands, the Sundas, and New Guinea. Vaurie (1961) suggested that the subspecific identity of winter visitors to southeastern Asia that have been identified as *calidus* in the past should be re-examined, as he believed many probably represented *japonensis*, adding that "I have examined migrants and winter visitors of *japonensis* from the Commander Islands, southeastern China, Philippines, Palawan, and Borneo and specimens which appear to be *calidus* from the Philippines, Hainan, India east to Assam, Andamans, Greater Sundas and New Guinea".

There has been limited research on migration of northern Eurasian Peregrines. Three females were satellite tracked from the Kola Peninsula in 1994 (Ganusevich *et al.*, 2004). One of these birds was tracked to its wintering area near Gibraltar, whilst the others stopped transmitting during autumn migration in Western Europe. Another Peregrine ringed on the Kola Peninsula was recovered dead as an adult on the



Dutch coast (*per.* P. van Geneijgen & S. Ganusevich). Two juveniles ringed at the Nenetsky Reserve were recovered on autumn migration in Urkraine and Sardinia (*per.* I. Pokrovsky).

An adult female fitted with a satellite tag on western Taimyr in 1996, was tracked to the Afghan border region of northwest Pakistan where it was trapped, whilst two others stopped transmitting during migration at the Aral Sea, Kazakhstan and at Tashauz close to the Uzbekistan-Turkmenistan border (Eastham et al, 2000). A one-year old *calidus* Peregrine released in 2001 as part of the Sheikh Zayed Falcon Release Programme in Gilgit, Pakistan, was tracked via satellite to the lower reaches of the Yenisey River, where it remained for the summer before embarking on an autumn migration to spend the winter in Uzbekistan and Turkmenistan. Furthermore, nestlings microchipped in Taimyr in 1997 and 1999 were trapped on passage in their first autumn in the Arabian Gulf (Eastham et al., 2000) and on the Gulf



Coast of Saudi Arabia (Quinn, 2000). There were a further four recoveries of Peregrines that were microchipped in Taimyr, the others having been detected at veterinary hospitals in the UAE (Barton, 2002). Peregrines wearing Arabic jessies (sabooka) have been recorded twice in Taimyr, in 1996 and in 1999 (McDonald, 1997; Quinn, 2000) and twice on the Yamal Peninsula in 2008 (A. and V. Sokolov).

The timing of migration has been determined by observation in the breeding areas and by satellite telemetry. Eurasian Peregrines typically arrive at their Arctic breeding grounds in May and begin breeding at the end of the month or more usually in June. The young are hatched in July and fledge in August and remain in the nest area until September or October when they begin their migration south; they subsequently leave their wintering areas in April or early May. Individuals (including breeding pairs and their offspring) migrate separately and typically spend the winter in different areas; with breeding pairs only meeting again once they return to their nesting territories.

To date, our project, through the use of satellite telemetry, has obtained information on migration for birds (mainly adult females) from three different breeding areas in the Eurasian Arctic i.e., the Yamal Peninsula, the eastern Taimyr Peninsula and the Lena Delta (Map 2). Peregrines from the Yamal Peninsula travelled 3,050 to 8,000 km and distributed themselves across a huge area of southern Europe, Africa and the Middle East, whereas those from our easternmost population on the Lena Delta travelled 4,350 to 7,650 km to winter in southern China and Southeast Asia. The wintering areas of Peregrines from the eastern Taimyr Peninsula, situated between the former two study areas, spent the winter in southern Asia, travelling 5,540 to 7,430 km to reach wintering sites in Pakistan, India, Bangladesh and Myanmar.

Our preliminary results reveal some degree of migratory connectivity between breeding and wintering areas along a longitudinal axis; Peregrines from the eastern breeding population winter in areas to the east of those that breed further west. Consequently, we can say that that Peregrines wintering in south-east Asia are likely to originate from breeding populations east of the Taimyr Peninsula, whilst those wintering in the Indian subcontinent most likely originate from the breeding areas between the Gydan Peninsula and the Lena Delta, and those wintering in the Mediterranean originate from breeding areas west of the Gydan Peninsula. It seems likely that the Arctic Peregrines that winter or pass through the Arabian Peninsula primarily originate from breeding populations on the Taimyr, Gydan and Yamal Peninsulas.



Map 2 showing autumn migration pathways of Peregrines from breeding populations on the Yamal Peninsula, Eastern Taimyr and the Lena Delta.

Migratory connectivity and subspecies

The existence of the subspecies described earlier suggests (i) limited gene flow between the different races and (ii) the possibility of local adaptation to breeding and/or wintering areas. The level of 'gene flow' essentially relates to the likelihood that a chick from one breeding population will eventually settle to breed in another breeding population; a process known as natal dispersal. If natal dispersal is high then there will be greater gene flow between populations and they are less likely to exhibit distinctive 'subspecies' characteristics. The 'clinal' or gradual gradation from west to east of *peregrinus* through *calidus* to *japonensis*, suggests that gene flow is restricted to some extent across this north Eurasian breeding range. We still know little about patterns of natal dispersal but it is probably related to migratory connectivity, especially if there is a significant genetic component to migratory behaviour. If gene flow is reflected by the pattern of migratory connectivity we see in our study populations then it is easy to see how the clinal variation in Peregrine characters are maintained across northern Eurasia. A particularly interesting question is to understand how this variation arises; do the west-east differences between Peregrines arise through adaptation or are they simply neutral, chance differences maintained by the pattern of limited natal dispersal? This is a key

element of our future work, where we hope to build on the information obtained from sequencing the genome of Peregrines to address this particular question.



Acknowledgements

This study is funded by the Environment Agency-Abu Dhabi. We thank HE Mohammed Al Bowardi for his continued interest and support in this project. The study has been conducted in conjunction with the 'Taimyrsky' and 'Ust-Lensky' Nature Reserves. We thank V. Pozdnyakov (Lena-Nordenskjöld Biological Station), for assistance in the field.

References

- Barton, N. 2002. Microchip recoveries from Mongolia and Taimyr. Falco 19; 6.
- Buturlin, S. 1907. *Falco peregrinus harterti* nov. ssp. Psovaya i Ruzheinaya Okhota 13; 99.
- Eastham et al. 2000. Saker *Falco cherrug* and Peregrine *Falco peregrinus* Falcons in Asia: Determining migration routes and trapping pressure. In RD Chancellor & B-U Meyburg eds. Raptors at Risk. WWGBP/Hancock House, British Columbia/Washington.
- Galushin, V. 2009. The Peregrine Falcon populations in European Russia at the beginning of the 21st century. Pp. 323-334. In J Sielicki & T Mizera eds. Peregrine Falcon Populations – Status & Perspectives in the 21st Century. Turul/Poznan Univ. of Life Sciences, Warsaw.
- Ganusevich, S et al. 2004. Autumn migration and wintering areas of Peregrine Falcons *Falco peregrinus* nesting on the Kola Peninsula, northern Russia. Ibis 146, 291-297.
- McDonald, H. 1997. Arab falcon discovered in the Arctic. Falco 8; 3-4.
- Pleske, T. 1928. Birds of the Eurasian Tundra. Boston Society of Natural History, Boston.
- Portenko, L. 1981. Birds of the Chuchki Peninsula and Wrangel Island. Smithsonian / National Science Foundation, Washington.
- Quinn, J. 2000. Captive Peregrine returns to breed successfully in the Arctic. Falco 16; 11.
- Stepenyan, L. 2003. Conspectus of the Ornithological Fauna of Russia and Adjacent Territories. Moscow Academkiniga. [in Russian]
- Vaurie, C. 1961. Systematic Notes on Palearctic Birds. No. 44 Falconidae: The Genus Falco (Pt.1, Falco peregrinus & Falco pelegrinoides). American Museum Novitates, New York.



Report on the first record of Red –footed Falcon Falco vespertinus in Iraq

Omar F. Al-Sheikhly

Ecologist. Nature Iraq. Iraq omar.fadhil@natureiraq.org

Summary

Nature Iraq has conducted field surveys in central and western part of Iraq in autumn 2010 and 2011. In Al-Alam Area, one of the regular surveying sites in Salah Ad-Din province, adult females and Juvenile Red–footed falcon *Falco vespertinus* were recorded. This species has never been described before as one of the avifauna species of Iraq (Allous 1953, 1960) and was never reported from any ornithologists who were involved or conducted field surveys in Iraq since 1960s. But Salim, M. *et al.* (2006) have mentioned this falcon unanimously without providing details. After careful and prolonged observation and examination of photos of the Al-Alam falcon by experts with the Nature Iraq Bird Records Committee (NIBRC), this has been accepted as a first record for Iraq.



The red-footed falcon. First recorded in Iraq by Omar Fadhil

Introduction

Nature Iraq and the Royal Society of the Protection of Birds (RSPB) have conducted biannual field surveys in central and western Irag since autumn 2009 in order to observe and monitor the critically endangered Sociable Lapwing Vanellus gregarius during its migration over Iraq and other Middle Eastern countries. Sociable Lapwing is a rare passage migrant and formally winter visitor wader which it has not been reported in Iraq in recent years. Its global population has been declining rapidly due to hunting pressure and habitat destruction. Depending on the historical records 11 potential surveying sites were proposed to be surveyed in both Anbar and Salah Ad-Din provinces in west and central Irag. Al-Alam Area (ca. 7.2 km), located to the northeast of Tikrit, the capital city of Salah Ad-Din Province, was one of the sites that were regularly visited by the survey team. Al-Alam Area is situated in the eastern bank of Tigris River. Its general landscape is characterized by a green ribbon of dense fruits orchids, date palm trees and scattered Eucaplytus, Populous, Morus, and Ziziphus trees. Thick bush and shrublands extend along the river banks while corn and wheat fields dominated the eastern front of Al-Alam.

On 14th of October 2010, through a 8 x10mm Swarovski binocular and at a distance of *ca*. 30-40 m a bird of prey showing features of a true falcon was perching on palm tree trunk. The size and the appearance of the perched falcon gave initial identification of this falcon as either a Eurasian Hobby Falco subbuteo or a Merlin Falco columbarius as they are regularly reported and start to move through the area during this time of the year. After cautious approach I was able to reach within a distance of ca. 5-7 m of the falcon's perching site and via Canon EOS 450D attached to an image stabilizing Canon 100-400 mm telephoto lens I was able to photograph and identify an adult female Red-footed Falcon Falco vespertinus. It had a distinct orange-buff head and nape, reddish eye ring and cere, pale sharp upper mandible, dark eye-patch with thin and short black mustache. The underparts were orange-buff while the mantle and upperparts were blue-grey and barred. Legs was distinctly red and the claws were pale not dark. In flight it had Kestrel Falco tinnunculus /Hobby-like wing beats and a remarkably black band on the trailing edge of its wings.

During 2011 autumn field surveys another adult female and Juvenile were recorded hunting and chasing flock of Greater Short-toed lark *Calandrella brachydactyla* in the fields of Al-Ceder Area(*ca.* 21 km) to the east from Al-Alam of Salah Ad-Din province. These three records made this species as a rare passage migrant to central Iraq.

Red-footed Falcon is a common breeding species in Eastern Europe with breeding attempts reported from Western Europe. Entire population migrates to south –western Africa. Autumn migration is mainly around eastern Mediterranean to Turkey, Syria, Jordan and Israel while vagrancy records have been made in western Iran, Kuwait and UAE (Porter & Aspinall 2010). It was suspected in the northern west and central parts of Iraq as suitable habitats and prey availability do exist here.

Raptor sp.	status in Iraq	note
Falco subbuteo	P,W	Adult observed
Falco columbarius	S, P, pb	Adult observed
Falco tinnunculus	bR,W	Pairs hunt in fields
Falco naumanni	bS, P	Pairs hunt in fields
Falco cherrug	rR , rW	Juv. trapped
Falco peregrinus	W,P, pb	Adult trapped
Falco pelegrinoides	bR,W	Regularly trapped

Table 1. Other Falconidae species recorded in Al-Alam Area and surrounding areas during the Sociable Lapwing project. P=passage Migrant, W=winter visitor, S=summer visitor, R=resident, b=breeding, r=rare, pb=probable breeding.



Adult female Red-Footed Falcon, Al aLam, Salah, Adin Central Irag.

Acknowledgments

I would like to thank my collages at Nature Iraq, Ali Ne'ma Salman from the Iraqi Ministry of Environment MOE for his companionship and assistant photography, RF. Porter, Simon Aspinall, and Dr. Robert Sheldon for their guidance. Also thanks to Anna Bachman for editing assistance. A special thank goes to the Royal Society of Protection of Birds RSPB, Swarovski Optics and Darwin Initiative for their support to the Sociable Lapwing surveys in Iraq.

References

Allouse, B. 1960. Birds of Iraq vol. I. [Arabic]. Al-Rabita Press, Baghdad.

- Clark, W. S. 2007. A field guide to the raptors of Europe, the Middle East, and North Africa. Oxford, NewYork.
- Porter, R. & S Aspinall. 2010. Birds of the Middle East. Christopher Helm, London.
- Salim, M. A., Porter, R. F., Schiermacker-Hansen, P., Christensen, S. and Al- Jbour, S. (2006) *Field guide to the birds of Iraq.* [Arabic] Baghdad: Nature Iraq/BirdLife International.



Site of 1st recorded siting of the Red Footed Falcon - Al Alam Area.

International Issues

International policy in relation to Saker conservation: a review of developments over the last decade.

Andrew Dixon

International Wildlife Consultants Ltd, PO Box 19, Carmarthen SA33 5YL

Introduction



Recent international concern about the conservation status of the Saker Falcon has its origins in the social, economic and environmental changes that took place following the collapse of the Soviet Union in 1991, culminating in the development of international conservation policies in the early years of the 21st Century. What follows is a summary of policy developments relating to Saker Falcons arising from this great change affecting Central Asia and I have not attempted to cover policy developments in Europe, primarily within the European Union, over the same period. Policy developments in Multilateral Environmental Agreements (MEAs) such as CITES and CMS are typically slow to evolve, and in the case of the Saker they were sometimes contentious and complex. My review necessarily omits much of the detail involved in the process of developing international policies and I have tried to convey accurately the developments as I see them. Developments relating to the Saker in the IUCN Red List have been included here as it is used as a guide to direct policy developments by governments and inter-governmental organisations.

CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora)

This is an international agreement between governments. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival.

The recent history of the Saker in CITES begins with the request in 2003 by the United Arab Emirates for the CITES Animals Committee to include the Saker Falcon in its Significant Trade Review process (the Saker is listed on Appendix II of CITES). By the time of the 21st CITES Animals Committee meeting in 2005 the process had advanced to stage where nine 'range states' were identified where the Saker was categorized as being of 'urgent concern' in relation to trade being detrimental to Saker populations. In 2006, CITES notified that these nine states had suspended Saker export permits and that any state wishing to resume exports had to conduct a population survey and establish a monitoring and management programme for harvesting and trade. However, Mongolia, one of the nine states identified as of 'urgent concern', continued its trade in Saker Falcons, thus in February 2009 the CITES Standing issued a notification recommending Committee that countries suspend trade in Saker Falcons with Mongolia.

In April 2009, the CITES Secretariat met with the Mongolian delegation at a specialist meeting in Abu Dhabi convened at the request of the CMS (see later) and the Mongolians subsequently provided the CITES Animals Committee with a document outlining a conservation programme based on artificial nests that was linked to the development of a system of sustainable use of the Saker. This project is being implemented as part of a MoU between the Ministry of Nature, Environment & Tourism (Mongolia) and the Environment Agency-Abu Dhabi. Consequently, in July 2009, the CITES Standing Committee withdrew its recommendation to suspend trade in Mongolian Saker Falcons, setting an annual quota of 300 birds in 2009 and 2010 prior to a review in 2011. In July 2011, the CITES Animals Committee undertook this review and endorsed the positive management regime for the Saker Falcon established by Mongolia, agreeing to an export guota of 300 birds for 2011. Mongolia can now set its own quotas and has been invited to update the CITES Animal Committee at its meeting in April 2014 on progress with developing a sustainable harvest based on artificial nests.



CMS (Convention on the Conservation of Migratory Species of Wild Animals)

This is an international agreement between governments under the aegis of the United Nations Environment Programme. Its aim is to conserve terrestrial, aquatic and avian migratory species throughout their range.

The Saker Falcon was first highlighted in CMS in 2008 when Croatia proposed that the species be listed on Appendix I of the Convention, a move that was prompted by the Endangered status of the species on the IUCN Red List. The proposed Appendix I listing for the Saker was not adopted at the 9th CMS Conference of Parties (CoP) in Rome mainly because of concerns that prohibition of 'taking' animals listed on Appendix I would impact on sustainable use of the species for falconry. Consequently, a specialist meeting was convened in Abu Dhabi and a there was a Resolution recommending that the Saker was listed on Appendix I of CMS at the next CoP if the species was still considered Threatened in the IUCN Red List. By the time the 10th CoP came around, in Bergen November 2011, the IUCN Red List status of the Saker had improved (it was now listed as Vulnerable) but it was still within the Threatened category. Consequently, the European Union put a new proposal forward to list the Saker on Appendix 1 of CMS. However, this proposal was significantly different from the previous one in that it specifically excluded the Saker population in Mongolia in recognition that a conservation project based on sustainable trade was being developed there. This proposal was accepted after some debate and the adoption of the Saker on Appendix I was accompanied by a resolution establishing a Saker Falcon Task Force to produce a Global Action Plan for the species. The 1st Meeting of the Saker Falcon Task Force was held in Abu Dhabi in March 2012.

Another development within CMS of relevance to Saker conservation was the creation of the CMS Raptors MoU (Memorandum of Understanding on the Conservation of Migratory Birds of Prey in Africa and Eurasia). Following meetings in the UK and Abu Dhabi the Raptors MoU came into being to help conserve migratory birds of prey and owls in the Africa-Eurasian region, with the UNEP/CMS Project Office set up in Abu Dhabi to host the Interim Coordinating Unit for this initiative. This office is now the co-ordinating unit for the newly established Saker Task Force.

IUCN Red List of Threatened Species

The IUCN Red List is designed to determine the relative risk of extinction, and the main purpose is to catalogue and highlight plants and animals that are facing a higher risk of global extinction

Red Lists are maintained by the World Conservation Union (IUCN) and serve the purpose of categorising species in relation to their risk of extinction in the wild (Box 1). BirdLife International is the Red List Authority that undertakes 'extinction risk' assessments for birds on behalf of the IUCN. Prior to 2004, the Saker Falcon was categorized as 'Least Concern', but in 2003 researchers working on behalf of Abu Dhabi raised the alarm that the Saker population was in rapid decline, especially in its Central Asian strongholds. The data produced by the Environmental Research and Wildlife Development Agency (ERWDA, now the Environment Agency – Abu Dhabi) was used in a 2004 Red List assessment and the Saker was uplisted from Least Concern (LC) to Endangered (EN) based on an estimated median population decline of 61% over 13 years from 1990-2003. In 2003, the global population was estimated to comprise only 4,005 breeding pairs (range 3,598-4,412), having declined from an estimated 10,238 breeding pairs in 1990 (range 8,488-11,987).

In 2010, BirdLife International, with support from the Saudi Wildlife Authority, undertook a review of the Red List status of the Saker in response to a Resolution from the CMS CoP in Rome 2009. This review took into account new data that indicated that the global Saker population was much larger than previously estimated, not only at the present time but also for

the earlier, 'baseline' population. In 2010, the global population was estimated to comprise 13,281 breeding pairs (range 9,613-16,948), having declined from an estimated 19,531 breeding pairs in 1991 (range 13,140-25,569). This revised population estimate resulted in a calculated median population decline of 32% over 3-generations (*ca.* 19 years), which meant that the Red List status of the Saker was revised from Endangered (EN) to Vulnerable (VU).

The revised Red List status didn't stand for long, as in 2011 BirdLife International again undertook an assessment of the Saker as part of their mandatory IUCN species review process. This review incorporated population assessments that indicated the Saker breeding populations in Kazakhstan and China were smaller than previously estimated. In this new review, the 2011 global population was estimated to comprise 10,442 breeding pairs (range 5,694-16,031), having declined from an

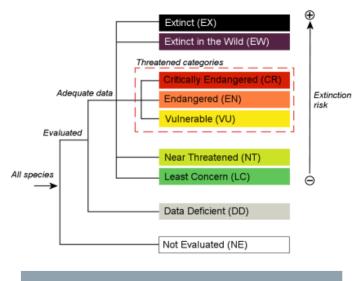


estimated 19,591 breeding pairs in 1992 (range 16,404-22,922). This revised population estimate resulted in a calculated median population decline of 47% over 3-generations. However, although this rate of decline fell within the Vulnerable (VU) categorization, the Saker was reclassified as Endangered (EN) as a precautionary measure, primarily because the range of population estimates was so great that the difference between maximum and minimum population estimates over the two time periods produced decline rates that could have resulted in classifications from Least Concern to Critically Endangered.



Conclusion

In many of the former Soviet Union states Red List status (i.e., National and/or Global) is one of the most important determinants of conservation policy, dictating the level of protection for particular species and the sanctions imposed against those who break laws relating to them. Consequently, downlisting of the Saker from Endangered to Vulnerable in the IUCN Red List in 2010 was considered to be very damaging for the species by many conservationists in the region. The way by which IUCN Red List status directs policy in MEAs such as CITES and CMS is usually through Appendix listing, with Threatened species normally being listed in higher Appendix/Annexes of these MEAs. However, this is not automatic and in the case of the Saker, a species which is a high-value tradable natural resource, its conservation may not be best served simply by introducing trade bans via Appendix/Annex I listings that have little or no effective enforcement. There is not necessarily a 'one size fits all' strategy for Saker conservation across its global range and conservationists with different opinions on the value and role of sustainable use in Saker conservation need to work to ensure that international policy developments do not impede management efforts to benefit the species.



Box 1. IUCN red list categories (www.iucnredlist.org)

all photographs by Stig Frode Olsen (www.raptorphoto.com)

Public Awareness and Education

Mongolian Artificial Nest Project: School Links Programme

Nicola Dixon and Shijirmaa Damdinsuren

International Wildlife Consultants, UK. (Email: nicola@falcons.co.uk) International Wildlife Consultants, Mongolia. (Email: shijirmaa@gmail.com)



The Mongolian Artificial Nest Project

The Mongolian Artificial Nest Project was initiated in 2009 following a 4-year year trial period when researchers studied the occupancy levels, breeding success and survival rates of Saker Falcons breeding at artificial nests in two experimental study areas. In total, 5250 artificial nests have been erected in selected areas of the Mongolian steppe, and from 2011-15 biologists will monitor the breeding and survival data of Saker Falcons in these nests with the aim of setting harvest quotas for the Mongolian Saker Falcon trade, based on demographic population models.

Mongolia is currently the only country to engage in a CITES regulated harvest and trade in Saker Falcons. International Wildlife Consultants (IWC), on behalf of the Environment Agency Abu Dhabi, are working with the Mongolian government to develop a sustainable Saker Falcon trade which will benefit Saker Falcon conservation, local communities in Mongolia and the cultural heritage of falconry in the Middle East.

The school links programme

The School Links Programme provides one way for local communities to benefit from the Artificial Nest Project,

through providing education resources and links with schools outside Mongolia. The programme has five main aims:

- **1.** For schools in 20 districts of Mongolia to benefit from the Artificial Nest Project via funding raised by partner schools in other countries
- 2. For children from Mongolia, Abu Dhabi (UAE) and United Kingdom (other countries) to exchange knowledge, culture and language using a falcon conservation project as a means of introduction.
- **3.** For children outside of Mongolia to learn about the Artificial Nest Project and its benefits for conservation.
- **4.** For children to learn about the practice and cultural heritage of falconry
- **5.** For all children living in an area where artificial nests are erected to understand the benefits of artificial nests for conservation and communities.

Public awareness & school links

Following the deliberate removal of 718 artificial nests in the 1st year after they were erected (14%) it was clear that staff had to redouble their efforts to increase awareness of the project among locals, and to ensure that the Artificial Nest Project provided some direct community benefit. Consequently, project staff visited each of the 20 districts where we had erected artificial nest and gave a presentation on the project to local people; the meetings were well attended and feedback was positive. It's important for the longevity of the project that the next generation of Mongolians understand the aims of the project. The School Links Programme will provide teachers with educational resources which explain why artificial nests have been erected for Saker Falcons on the Mongolian steppe.

Students from Bayan district school, Tov province, Mongolia, travelled with project staff to the artificial nests in their district during the 2011 fieldwork season. During this field trip students learnt about how artificial nests could potentially improve grasslands by using birds of prey as a biological control of rodent pest species.

Educational resources have been prepared on the following topics



Resources consist of example lesson plans, PowerPoint presentations, notes for teachers and student worksheets. The content is aimed at 10-14 yr old students; however, they can be modified to suit appropriate ability and delivery of the lesson, to an individual, group or whole class. All resources are available online at **www.mefrg.org** in Mongolian and English. Appropriate language translations will be added as more international schools join the programme .

Link school expectations

Schools that sign up for the School Links Programme will be asked to complete some or all of the educational resources provided as shared knowledge will give each school a starting point for communication. Through the School Links Programme, students, teachers and parents can widen their knowledge of falconry culture and heritage and learn how people live in other parts of the world. Participating schools will be asked to provide a student-written presentation titled 'my life', a 250 word document or 3 minute PowerPoint presentation. All presentations will be translated into Arabic, English and Mongolian and sent to link schools. An internet social network site will be set up and administered by the IWC Project Manager, which will facilitate communication between schools and students and allow children to communicate in all languages.



Bayan school students painting artificial nests following the visit to the artificial nests

Each school will be supported by the IWC Project Manager for one year. It is hoped that schools will continue to exchange ideas, resources and knowledge long after the initial support is given. School twinning can enhance the school curriculum and build longterm relationships between children and adults in the partner communities.

In 2012, Bayan School, Mongolia will link with Glyncoed Junior school in the UK. The Artificial Nest Project has nests erected in 20 local districts. During the next four years we aim to provide the means for each district school to twin with an international school partner.

For more information or to find out how to become a link school please contact Nicola Dixon **nicola@falcons.co.uk**

Images of falconry in Iran (Persia) from the Falconry Heritage Trust's image collection

Jevgeni Shergalin

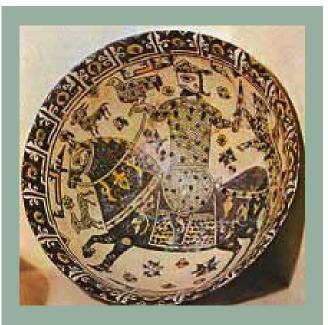
Affiliation: Archivist, Falconry Heriatge Trust, P.O.Box 19, Carmarthen, SA33 5YL, Wales, UK. E-mail: <u>fht@falcons.co.uk</u>

Introduction



Miniature. Portrait of Tahmasib shah with falcon. Painter Saltan Muhammed. XVI century.

Historically Iran (Persia), is one of the richest countries in the world for falconry heritage. Pictures, plates, tiles, miniatures, photos are very interesting from this region. A modest set of them, shown below, is a good demonstration of the diversety of heritage from this part of the world and how falconry was wide spread among different national minorities of Iran (Persia), who flew different hunting birds of prey.



Slip-painted bowl from Nishapur, Iran, 10th century. A hunting scene with a distant echo of Sassanian majesty.

From: <u>http://www.farhangsara.com/history</u> <u>samanids.htm</u>



On the left: Rembrandt. Shah Jahan and Dara Shikoh. On the right: Rembrandt. Shah Jahan on horse with a bird.



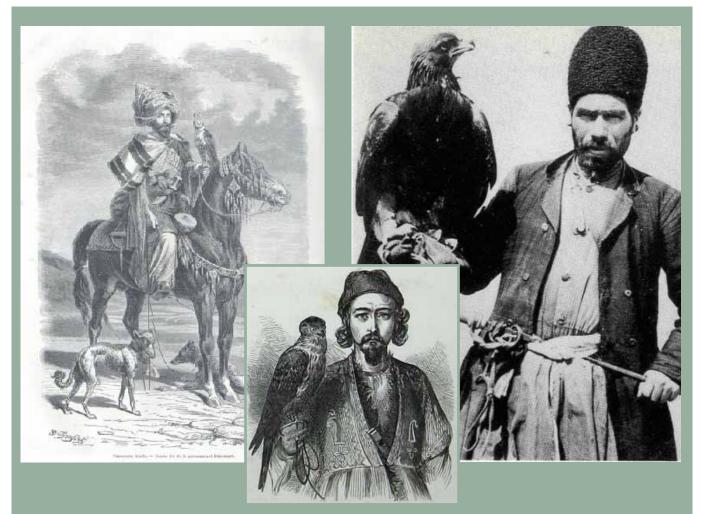
A Persian stoneware tile of plain oblong form, moulded and painted in polychrome enamels on a typical blue ground with a falconer on horseback, 8"" x 5 1/4"" – From Hartleys Auct. and Valuers



Antique Persian Qajar Moulded Pottery Tile, 19th century. With permission of Galerie HAFNER.



On the left: Mirza Ali. Hunter with a hawk. Halt during hunting. 1575. From Wikipedia. **At the middle:** Artist unknown. A Boy with a falcon. Persia. Kadjar dynasty. End of the 18th century. From State Hermitage, St.-Petersburg. **On the right:** The Falconer. A Persian pattern, 11th century. Composition: Wool/linen From: http://www.historiskarum.se/medeltid_english.htm



On the left: Persian Sighthonds with Kurdish Falconer, "Hunting in Persia" in "Le Tour du Monde" 1860. Text and illustrations by Commandant E.Duhousset. **Middle:** Persian falconer. From The Illustrated London News of 14 June 1873. No.1763. **On the right** - Persian falconer with the Golden Eagle. With kind permission of Jemima Parry-Jones's family and ICBP.



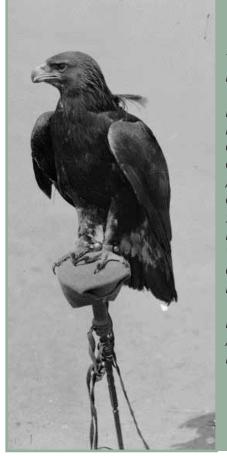
On the left: Sadeler. Portrait of the Persian legate to Rome, Mechti Kuli Beg Ennug Ugly. Engraving of 1605. British Museum. *At the middle:* Persian falconer. Antique Print. 1880. *On the right:* Falconer of the Sheik.--Hindu-Persian Types and Costumes. Illustration from With the World's People by John Clark Ridpath (Clark E Ridpath, 1912). From: <u>http://karenswhimsy.com/persian-clothing.shtm</u>



the image is Nasir al-Din Shah's Chief of Hunting Birds Amur Mirza with his sons. He also wrote a book on techniques of hunting-birds' training called Baz-Nama'i Nasiri (Nasiri's Treatise on Falconry), published in 1868. Myron Bement Smith Collection. Freer Gallery of Art and the Arthur M. Sackler Gallery Archives. Smithsonian Institution, Washington, D.C. Photographer: Antoin Sevruguin. Negative number 58.1.



Persian Falconer with Intermewed Goshawk, ca 1890-1900. Albumen print. Antoin Servruguin Photographs. Freer Gallery of Art and Arthur M.Sackler Gallery Archives. Smithsonian Institution, Washington, D.C. Gift of Jay Biasno, 1985. Photographer: Antoin Servruguin.



The Golden Eagle on perch, 1880-1908. Glass negative. Myron Brement Smith Collection. Freer Gallery of Art and Arthur M.Sackler Gallery Archives. Smithsonian Institution, Washington, D.C. Gift of Katharine Dennis Smith, 1773-1985. *Photographer:* Antoin Servuguin, negative number 14.6.



Alexander Iyas. Qarapapakh falconers, Naghadeh, 3 January 1913. Photo from exhibit: http://www. iranheritage.org/alexanderiyas/gallery.htm



Ready for the Chase - Persian Falconer with Goshawk. Photo by Sir P.Sykes from "Peoples of All Nations". 1922, Nr 36, p.3996.

Acknowledgements.

Compiler is grateful to the following people who help to collect these images: Andrew Dixon, John Tchalenko, Dan Hogge, Betsy Kohut and Shabnam Rahimi-Golkhandan.

Emerging wasting syndrome in Peregrine Falcons (Falco peregrinus)

Richard Jones BVSc MSc MRCVS and Neil Forbes BVetMed Dip ECZM (avian)FRCVS

Affiliation: Avian Veterinary Services, Knutsford, UK. <u>info@.</u> <u>avianveterinaryservices.co.uk</u> Great Western Exotics, Swindon, UK. <u>neil.forbes@vets-now.co.uk</u>

Summary

Over the past two years approximately 30 Peregrines and Peregrine hybrids from at least 3 separate collections in the UK (and anecdotally other parts of Europe) as well as privately owned falconry birds have succumbed to an enteritis and 'wasting' syndrome that seemed unresponsive to traditional treatment regimes.

Clinical signs include general poor condition, weight loss despite eating excessively, screaming, recurrent mucoid/slimy diarrhoea, pale feet, cere and talons, increased drinking and vomiting, sadly in many cases progressing to death despite culture based antimicrobials.

We do not as yet have a definitive diagnosis but with falconers and breeders continued help in submitting cases for investigation we are slowly making progress.

Based on the results of ongoing work and clinical responses our current working hypothesis is that it is a form of post infectious Inflammatory Bowel Disease (IBD).

Clinical findings

What follows is a summary of the findings and information we have available at the time of writing.

- 1. From our personal observations this syndrome seems only to affect Peregrines or Peregrine hybrids even within multi species collections.
- 2. Clinical signs include general poor condition, weight loss despite eating excessively, screaming, mucoid/ slimy diarrhoea, pale feet, cere and talons (Figs 1 and 2), excessive drinking and vomiting, sadly in many cases progressing to death despite culture based antibiotics.
- 3. Some birds with aggressive supportive therapy improve and may even breed, but long term, recurrent relapses are typical.
- 4. Despite countless faecal samples and cultures no single bacteria, yeast or parasite has been consistently identified across the board suggesting that those

pathogens isolated are secondary invaders to an already inflamed/damaged gut.

- 5. We have recently received results from virologists of work carried out on both tissue and faecal samples of affected birds. Viral chip/microarray technology that searches for any viral DNA present in the samples and compares it to a data base of nearly 2000 known viruses, has failed to identify a causal virus in any samples submitted over the past year.
- 6. A separate team at Bristol University who has been looking at tissue samples of both affected and 'normal peregrines' (wild casualties that have been euthanized on humane grounds) has demonstrated changes consistent with post infectious inflammatory bowel disease (IBD). This is a similar condition to ulcerative colitis in people where a historic intestinal insult, be it viral, parasitic or toxic may result in an 'autoimmune reaction' where the bird develops antibodies to its own intestinal lining. This damages the gut allowing secondary infections to proliferate. It is thought this occurs because 'antigens' or protein markers on certain infectious agents (salmonella for example) may resemble similar structures found on intestinal cells. When antibodies are made in response to infection, they are stored in the immune systems 'memory' as a permanent defence mechanism against future challenge. When under stress or hormonal influences (in a paper on ulcerative colitis in women, flare ups often occur after giving birth and rarely during pregnancy) the body can mistakenly identify intestinal cells as invading infectious agents and attack it accordingly. Also in mammals certain foods can trigger episodes. As such when a bird demonstrates clinical signs associated with certain food items it is assumed this must be carrying 'the virus'. It is equally possible however that certain proteins cause flare ups and others don't hence the possible response to exclusion diets (all rat for example).

Based on the above our current working hypothesis is that a historic gut insult be it a bacteria, virus, parasite or toxin results in post infectious IBD, which (as in humans) is then likely to be a lifelong problem with 'flare ups' managed by identifying and removing apparent trigger factors (certain foods, parasites etc) in conjunction with supportive fluids, nutrition and medication.

The problem we are up against is by the time obvious clinical signs are apparent the inciting cause is likely long gone.

As this syndrome seems to be over represented in older birds it may be that chronic or repeated low level intestinal insults by one or a combination of the above eventually leads to disease.



An adult female Peregrine in the advanced stages of the disease with marked weight loss, unkept appearance, and pale cere, feet and talons.

Current recommendations

If a falcon is displaying such symptoms we would advise you contact your avian veterinarian ASAP as other easily diagnosed conditions such as coccidia can produce similar signs and are thankfully very easily treated. In addition collecting samples as early as possible in the process increases the likelihood of recovering causal agents.

Probiotics have been shown to help maintain a healthy gut flora and may offer some protection against IBD. As such we have been using such products on a preventative basis in collections of breeding falcons.

If a falcon seems to have diarrhoea following the ingestion of certain food items or groups (provided other infectious causes have been ruled out) it may be worth trying an exclusion diet as discussed above. If

things improve on a novel protein it maybe this bird has a 'sensitivity' or 'intolerance' to certain food items that may contribute to the development of IBD.

As affected falcons appear to drink copiously, it is recommended fresh water is available at all times.



Pale feet and talons the same

We will endeavour to keep you informed of any future developments via our website, the Hawk Board and Falconry club literature and you can make a donation to the Hawk Board's raptor research fund via their web site. <u>www.hawkboard-cff.org.uk</u>

Acknowledgements

We would like to thank The Hawk Board, Honeybrook Animal Foods, Falcon Mews, M&J Raptors, Mark Stidworthy MRCPath MRCVS, Prof. Michael Lierz, Dr.Akbar Dastjerdi and Dr.Tristan Cogan for their help and support with ongoing work.

Novel therapeutic agents and treatment modalities for falcons

Dirk J. Verwoerd¹ and Tom Bailey²

¹ South African Falconry Association; <u>dirkv@karanbeef.com</u> ²International Wildlife Consultants, Carmarthen,Wales

Abstract

Two of the most common ailments of captive raptors; Airsacculitis and Pododermatitis (Bumblefoot) share several important characteristics. Modern falconers and raptor veterinarians are still challenged by these conditions due to their multifaceted and complicated nature. Both conditions are characterised by the development of biofilms; these are multispecies aglommorates of microorganisms surrounded by a self-produced extracellular matrix ("bacterial slime") where some bacteria & fungi generate a commensal ecosystem with interactive, intra-& and interspecies communication mechanisms. The same bacterial species present different metabolic profiles, as well as shared acquired resistance mechanisms resulting in a much higher antimicrobial resistance. Therefore integrated preventative programmes where management aspects, disinfection of the environment, feet and airsacs as well as strategic antimicrobial therapy are essential to achieve success.

An effective, safe disinfectant such as the F10 range of products provides the critical applications that prevent the early establishment of highly complex microbiological ecosystems in the respiratory system and/or on the integument.

Introduction

Two of the most common ailments of raptors in captivity are respiratory tract infections ["Airsacculitis"] and feet disorders [in particular "Pododermatitis/Bumblefoot"], which at first glance have little in common, yet share several important characteristics from a clinical perspective. Modern falconers and raptor veterinarians still struggle with these conditions even with state of the art medicine, due to their multifaceted, often complicated nature.

Airsacculitis

The avian respiratory system consists of a complex series of cranial- and caudal membranous airsacs that communicate with each other through a network of tubes (bronchi & bronchioli). The former act as air reservoirs where humidification and heating takes place while the latter is highly vascular and is where gas exchange takes place. The airsacs have few blood vessels; thus are anatomically compromised structures in terms of an effective immune response, in stark contrast to mammalian lungs where the blind ending sacs in the lungs (alveoli) are highly vascular allowing gas exchange, inflammatory- and immune responses in the same anatomical site.

Bacteria and fungal spores inhaled with dust particles find a very suitable environment on the moist, warm airsac membranes and rapidly establish a complex microbial ecosystem known as biofilm. The host

Table 1: Clinical aspects of Airsaccilitis & Bumblefoot, illustrating shared characteristics.

Airsacculitis	Bumblefoot
Typical clinical classification: 3x Severity Grades based on extent, complications and prognosis with only early, uncomplicated cases carrying a good prognosis. Aspergillosis in raptors has been classified by Redig (1993).	Typical clinical classification: 5x Severity Grades based on extent, complications and prognosis with only early, uncomplicated cases carrying a good prognosis. See Remple (1993) and Bailey and Lloyd (2008) for classification.
Shared characteristics	

Advanced cases commonly complicated with fungal spp. concomitant with a variety of opportunistic bacteria. e.g *Aspergillus* plus *E.coli*.

More common in heavy birds e.g Eagles, Vultures and Gyrfalcons.

Successful preventative programmes consist of environmental changes, physical exercise and dietary supplements.

Successful treatment programmes consist of an integrated plan with antimicrobial agents delivered parenterally as well as nebulisation with a safe, effective disinfectant.e.g F10

Poor/easily compromised host immune responses to infections in these tissues

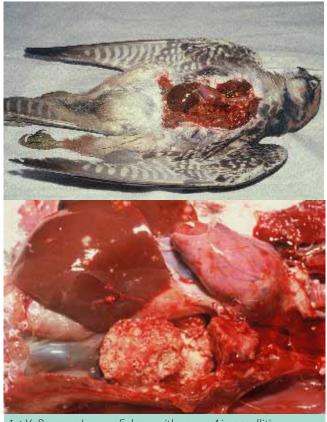
response is slow and relatively ineffective in the face of overwhelming challenge or under highly stressful situations.

Effective programmes to prevent airsacilitis comprise some or all of the following:

- Identification of critical control points in predictable, high stress situations, where regular nebulisation with F10 can be practised as a standard procedure; e.g early falconry manning & training period of Gyrfalcons.
- 2. Identification of early infections (Aspergillosis !) through a basic laparoscopic health check on all new falcons. This is essential in environments conducive to airsacculitis such as the Middle East.
- 3. Nebulisation of all avian patients entering a raptor hospital to prevent nosocomial airsacculitis, irrespective of the reason for submitting the patent.
- 4. Dedicated Respiratory Infections Ward for such patients, separate from other avian patients, that allows regular infrastructural plus patient nebulisation.
- 5. Cage/Aviary / Free Mews designs that allow flying of raptors, utilisation of different perches including swinging perches.
- 6. Balanced ration that includes a variety of whole birds and where appropriate rodents. Provision of additives that support healthy integument (skin, feet, feathers, nails, membranes; particularly Vit A& Zn as well as Vit E & Se.

Pododermatitis ["Bumblefoot"]

Raptor feet are not only used for the obvious perching, walking or grabbing of prey functions, but also as important temperature regulating organs. This additional physiological function is common to all birds' feet. Warm arterial and cold venous blood vessels are in close proximity to each other, allowing crosscurrent heat exchange with the aid of vascular shunts/sphincters. In addition a rich capillary bed next to the skin surface in the subcutis allows heat dissipation through convection. The above suggest rapid and effective blood borne immune responses to any microbial challenge. This is



1st Yr Passage Lanner Falcon with severe Airsaccullitis, Serratospiculiosis & Avian TB Hepatitis



Male Siberian Goshawk; Severe Aspergillosis



Verty advanced Airaccullitis with Caseous Exudate; Commonly a mixed bacterial & fungal flora/biofilm

in fact the case for healthy raptors in a regular exercise regimen such as hunting falcons, where small puncture wounds by talons or thorns are "normal" and have no consequences in the vast majority of cases. But even in such scenario's disasters do happen, so falconers often follow preventative management procedures by regular application of F10 ointment to their falcon's feet. In my own experience at least three well cared for hunting raptors have died acutely as a result of septicaemia / vegetative endocarditis after the introduction of *Pseudomonas aeruginosa* to the bloodstream via a tiny puncture wound in one toe/footpad. [Crowned Eagle, African Hawk eagle, African Peregrine].

Table 2: Causes of bumblefoot and correc	ctive actions.

Bumblefoot Presdisposing Factors	Preventative / Corrective Action	
Repeated non-penetrating Trauma:		
 Too hard perches Heavy birds [Breeding Gyrfalcons, Eagles, Vultures] Flight incapacitation (Wing/shoulder injuries) Injured leg/foot = excessive weight on the other 	 Padded perches Different sized flat, round and swinging perches Free Mews rather than blocks only for falconry birds, especially during moult Ledge with sand / pea gravel in free mews 	
Pentrating trauma:		
 Talons too long Poor feet hygiene Hunting in thorn tree /-scrub / cactus 	 Trim talons regularly if they don't wear normally. Regular (after every flight) use of F10 germicidal ointment 	
Nutritional deficiencies:		
● VitA & Zn	 Balanced whole animal/ bird diet Nutritional supplements 	

Biofilm

At the most basic level active bacteria occur in essentially two forms: A: planktonic / free living and B: in biofilm communities. Biofilms are multispecies aglommorates of microorganisms surrounded by a selfproduced extracellular matrix ("bacterial slime") where some bacteria /fungi generate a three dimensional environment with stacks and channels, creating a microcosm of interactive, intra-& and interspecies communication mechanisms in a commensal ecosystem. The same bacterial species present different metabolic profiles and very importantly from a clinical perspective a much higher resistance to antimicrobial treatment. In a classic study Olson et



Medium sized scab (grade 2-3) in a falcon with bumblefoot

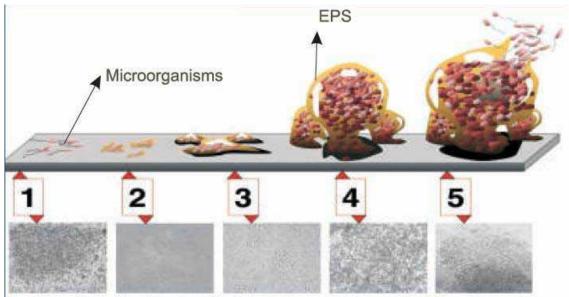
al (2002) found a 10-1000 fold higher MIC in biofilm organisms against commonly used antibiotic classes vs the same bacterial species in planktonic form. The field of biofilm studies is an exciting combination of microbiology, physics, engineering and medical/ veterinary clinical applications. It is relevant for fields as diverse as rust / paint science on ship hulls and medical indwelling devices in ICU/hospital patients such as catheters, endotracheal tubes, pacemakers etc. In the context of this discussion it is important to realise that both airsacculitis and pododermatitis syndromes are in fact caused by complex biofilms in/on the various anatomical structures and that an understanding of biofilm biology is essential to unravel the sequence of events that led to chronic / non-responsive clinical cases. It also allows us to design and implement sensible, effective preventative strategies as well as treatment modalities. It is therefore logical to consider an integrated approach with parenteral or oral antibiotic / antifungal products in conjunction with novel effective, tissue friendly disinfectants directly onto the affected / at risk tissue.

Table 3: Common microbes often isolated from clinical syndromes in human /veterinary medicine & associated with biofilm formation. From: Clutterbuck et al (2007).

Common Microbes often isolated from clinical syndromes in human /veterinary medicine & associated with biofilm formation

Pseudomonas aeruginosa Klebsiella pneumonia Aspergillus fumigatus

Mycoplasma spp Candida albicans Aspergillus spp Pasteurellaceae A key question to researchers and clinicians alike that are confronted with these two conditions is: "What was the initiating insult /event that triggered the chain of events that eventually resulted in clinical airsacculitis / pododermatitis ? The ability to identify such pivotal issues and then design & implement appropriate preventative strategies is fundamental to any successful avian health programme. have evolved in regions with cold & wet climates, yet we demand exceptional athletic feats from them in hot & humid areas such as the coastal strip of the UAE. Fungi such as *Aspergillus* spp proliferate under these conditions and easily colonise the respiratory tract of stressed Gyrfalcons when they undergo initial training. Preventative fogging with F10 of such birds after every training session, or even automated fogging systems



over nest ledges and hack boxes in flight pens will tip the balance against the fungi, in favour of the falcons.

Multi species microbial ecosystems (bacteria, fungi, yeasts) surrounded by self produced extra cellular matrix (slime)

Illustration From (Looking for Chinks in the Armor of Bacterial Biofilms Monroe D PLoS Biology Vol. 5, No. 11, e307 doi:10.1371/journal.pbio.0050307)

In the context of preventative programmes against airsacculitis and pododermatitis in raptors, an effective, safe disinfectant such as F10 provides us with an indispensible application that tips the scale to the benefit of the bird and prevents the early establishment of highly complex microbiological ecosystems in the respiratory system and/or on the integument. Thus we don't become entangled in frustrating spirals of treatment-recovery-retreatment that are often the hallmark of both these conditions when we limit our approach to clinical treatment of cases with established infections only.

A practical example is the use of fogging with F10 to prevent aspergillosis in Gyrfalcons / Gyr hybrids used for falconry in the Middle East. These avian superpredators

Syndrome / condition

3rd degree burns Indwelling medical devices Cystic Fibrosis

COPD[Humans] Bovine Respiratory Disease Complex Porcine Respiratory Disease Complex Avian Respiratory Disease Complex

References & Further Reading:

- Redig, P.(ed) .1993.Raptor Biomedicine. Univ Minnesota Press
- Samour, J.2000 Avian Medicine. Harcourt Publishers
- Cooper, J.E.(ed).2002 Birds of Prey: Health & Disease.3rd Ed. Blackwell Science
- Gladwell, M. 2001. The Tipping Point...how little things can make a big difference., Penguin Books.
- Clutterbuck, A.L., Woods, E.L., Knottenbelt, D.C., Clegg, P.D., Cochrane, C.A., Perciva, S.L.2007. Biofilms and their relevance to veterinary medicine, Veterinary Microbiology Volume 121, Issues 1-2, 31:1-17
- O'Toole, G., Kaplan, H.B., Kolter, R. 2000 Biofilm formation as microbial development . Annual Review of Microbiology Vol. 54: 49-60
- Morris DP.2007 Bacterial biofilm in upper respiratory tract infections. Curr Infect Dis Rep. 9(3).Pp186-92
- McAuliffe, L. Ellis, R.J. Miles, K. Ayling, R.D. Nicholas, R.A.J. 2006. Biofilm formation by mycoplasma species and its role in environmental persistence and survival. Microbiology 152:913-922
- Olson, M.E. Ceri, H. Morck, D.W. Buret, A.G. Read, R.R. 2002 Biofilm bacteria: formation and comparative susceptibility to antibiotics. Can J Vet Res. 66(2) :86–92.
- Bailey, T.A. 2008. Respiratory Diseases. BSAVA Manual of raptors, pigeons and waterfowl.
- Bailey, T.A. & Lloyd, C. 2008. Foot problems Diseases. BSAVA Manual of raptors, pigeons and waterfowl.

2nd International Festival of Falconry 2011



©Andres Lopez Sanchez









A selection of photographs from the hugely successful 2nd International Festival of Falconry. Thousands of people gathered from 78 countries to make it the largest gathering of falconers the world has ever seen.

The festival was held at AI Jahili Fort in AI Ain, with national falconry camps, exciting arena demonstrations, an art and photography competition and a children's education area. The Festival climaxed with the Grand Parade which saw all the nations present together in the arena. It was a spectacular sight, seeing falconers of all ages from all corners of the world, come together under one banner to show that falconry truly is a shared living heritage.

Experts presented papers on a wide range of falconry related topics at the International Conference for Falconry and international delegates participated in traditional desert hawking parties.

Raptors in the News

Poisoning

In previous issues of *Falco* we have noted the potential impact on Birds of prey such as Sakers, of rodent control by poisoning for grassland management in China and Mongolia and for plague control in Kazakhstan. A recent BirdLife press release has highlighted that the issue is also a problem in Europe:

http://www.birdlife.org/community/2012/06

The French fashion of 'chemical treatment campaigns' endangers birds

Despite the alarm sounded by LPO (BirdLife in France) about the damage they cause to wildlife in the French region of Auvergne, ten new French regions have asked the French Ministry of Agriculture to implement, in their territories, chemical treatment campaigns targeting rodents like the vole and wild carnivores such as foxes, ferrets and others weasels.

However, since November 2011, 86 Red Kites (33 of which were victims of poisoning by bromadiolone – ongoing analysis on other suspected cases) have been discovered dead by poisoning in Auvergne, indirect victims of the treatment campaign targeting the vole.

Red Kite is the species hit most by this in the country (58% of birds). The French population of this species is the second largest in Europe. Consequently, France has a responsibility in its conservation at a European level.

Moreover, the "treatment substances" commonly used are strong toxins like bromadiolone but also forbidden substances such as anticoagulants or pesticides like Lindane.

LPO is actively advocating for the French government to stop the treatment campaigns and to implement measures ensuring the protection of Red Kite.

Related research:

Acute poisoning of Red Kites (Milvus milvus) in France: data from the SAGIR network

P. Berny & J-R. Gaillet (2008)

Journal of Wildlife Diseases 44, 417-426. Abstract

Red Kites (*Milvus milvus*) are avian scavengers limited to Europe, and they currently are listed as an endangered species worldwide. Accidental poisoning is often listed as one of the threats to Red Kites throughout their range of distribution. The purpose of this article is to investigate the suspected poisoning cases reported to the French Wildlife Disease Surveillance System. Dead animals are submitted to a local veterinary laboratory for necropsy and when poisoning is suspected, samples are submitted to the Toxicology Laboratory of the College of Veterinary Medicine, Lyon, France. Over the period 1992–2002, 62 Red Kites suspected of poisoning were submitted, and poisoning was the confirmed cause of death for greater than 80% of these cases. The major toxicants found were cholinesterase inhibitors (carbamates and organophosphate insecticides) and anticoagulant compounds. The circumstances of exposure include secondary poisoning after the use of anticoagulants over vast areas to control water vole (Arvicola terrestric) populations, but they also include malicious poisoning with carbamates (aldicarb and cabofuran) in meat baits. Cases of poisoning vary throughout France, with observed mortality rates ranging between 0.1/100 hundred breeding pairs/10 yr and four cases/100 hundred breeding pairs/10 yr. Additional cases of poisoning likely go undetected, and our results suggest that acute poisoning is not uncommon in Red Kites and that it should be considered in the current restoration plans.



Raptors in the News

U-turn on Buzzard Trails

In May 2012, the UK Government Department of Environment, Food and Rural Affairs (DEFRA) announced a proposal to spend £350,000 on a scientific study to find out the true extent of buzzards preying on young pheasants and how best to discourage birds that may cause damage to businesses involved in rearing pheasants to shoot for sport. This trial was to investigate non-lethal methods of control including moving the birds elsewhere. However, after a public outcry the proposal was withdrawn, as noted in the following press release:

http://www.defra.gov.uk/news/2012/05/24

We've listened to public concerns, so we are stopping the planned research and developing new research proposals on buzzards. Today, Wildlife Minister Richard Benyon said:

"In the light of the public concerns expressed in recent days, I have decided to look at developing new research proposals on buzzards. The success of conservation measures has seen large increases in the numbers of buzzards and other birds of prey over the last two decades. As Minister for Wildlife I celebrate that and since 2010 we have championed many new measures to benefit wildlife across England – set out in our England Biodiversity Strategy.

At the same time it is right that we make decisions on the basis of sound evidence and we do need to understand better the whole relationship between raptors, game birds and other livestock. I will collaborate with all the organisations that have an interest in this issue and will bring forward new proposals."

Following discussions with stakeholders, which included the RSPB, British Trust for Ornithology and other conservation organisations, the list of trials in the DEFRA study included a proposal for the 'Permanent Translocation' through the removal of Buzzards off site, for example, to a falconry centre. However, the Hawk Board, which represents falconry interests in the UK, was not consulted about this proposal nor was it included in the stakeholder group. Instead, DEFRA stated that Natural England (a government agency) would provide assistance for researchers in planning and licensing negotiations with potential recipients.

Dr. Nick Fox responded by stating "we currently have a Hawk Board policy on wild take, primarily from the point of view of falconry. Clearly falconers have no major interest in homing trapped buzzards".

Mongolian Saker Quota



This year, for the first time since 2009, Mongolia is free to set a quota its Saker Falcon harvest, where wild birds are trapped and exported to Arabian countries for use in falconry; primarily to Kuwait, Qatar and Dubai (UAE). For the previous three years CITES set an upper limit of 300 Sakers for export, though Mongolia actually exported fewer each year. The Government, prior to the national election taking place on 28 June, has announced the 2012 Saker harvest quota in the following press announcement:

http://cabinet.gov.mn/report/printreport.php?fn =govmeetingpress.php&qs1=meetingid=12060001

Cabinet Meeting#34 which was held on 5 June made a decision, among other issues, to establish the Saker Falcon export quota for 2012 at 150 birds. It is said in the brief information of the Cabinet Meeting that Mongolia has exported 2,700 Sakers over the period 2000-10, and the Government has received more than US\$11 million as export payment and other fees over the last 5 years. Further it states, the distribution of the Saker Falcon in Mongolia remains constant and the population is estimated at 6,800 in Mongolia, according to surveys conducted in 2010. منغوليا، و(2) تبادل الأطفال في منغوليا وأبو ظبي (الإمارات العربية المتحدة) وغيرها من الدول المعرفة والثقافة واللغة من خلال الإلتقاء بواسطة مشروع صون صقر الشاهين، و(3) تعلم الأطفال خارج منغوليا عن مشروع الأعشاش الاصطناعية وفوائده للصون، و(4) تعرّف الأطفال على رياضة الصقارة، و(5) تفهّم الأطفال المقيمين في المناطق التي أقيمت الأعشاش الاصطناعية فيها لفوائد تلك الأعشاش للصون وللمجتمعات المحلية على حد سواء.

تراث الصقارة

صور للصقارة في إيران (فارس) من مجموعة صور صندوق تراث الصقارة

يفجني شرجالن

تتمتع إيران (فارس) بتراث ثري من الصيد بالصقور، وقد لعبت تلك الدولة الكبيرة والعريقة دورا هاما في تنمية الصقارة في العالم. توضح هذه المقالة التنوع العرقي لجماعات الصقارين في فارس ومجموعة طيور الصيد التي يستخدموها من نسور وصقور وعقبان. توجد رسوم الصقّارين على مختلف المواد كالبلاط والمنمنات والنقوش والشارات والحلي والأطباق والأبسطة والسجاد وغيرها. تظهر مجموعة من الصور بالأبيض والأسود الصيادين وملابسهم وطيور الطرائد التي يستخدموها في الصيد بالعقور والعقبان. يمثل الحظر الحالي على مختلف من يستار والتقوش والشارات دون جمع المواد عن تاريخ الصقارة في إيران الحديثة.

إدارة وصحة الطيور

ظهور لمتلازمة هزال في صقور الشاهين Falco peregrinus

ديرك فيرووئرد وتوم بيلي

وقع قرابة 30 صقر شاهين وصقور شاهين مهجنة - من 3 مجموعات مختلفة إضافة إلى صقور صيد يملكها أشخاص في المملكة المتحدة وفي أجزاء أخرى من أوربا كما يقال، خلال السنتين الماضيتين ضحية لالتهاب الأمعاء ومتلازمة "الهزال" التي تبدي عدم الاستجابة للأنظمة التقليدية في العلاج. تشمل الأعراض السريرية حالة ضعف عام، وفقدان الوزن رغم تناول الطعام بإفراط، والصراخ، وإسهال مخاطي/ رغوي، وشحوب الأقدام والقير والمخالب، زيادة الشرب والتقيء، ويؤدي الأمر للأسف في حالات عديدة للنفوق على رغم استخدام مضادات الميكروبات قدمت على أساس الزرع. لم نتوصل حتى الأمر للأسف في حالات عديدة للنفوق على رغم استخدام مضادات الميكروبات قدمت على أساس الزرع. لم نتوصل حتى الأمر للأسف الي حمائي، إلا أن استمرار الصقارين والمربّين المساعدة من خلال جلب الحالات للتحقيق فإننا نحرز تقدما بطيئا. إن فرضيتنا الراهنة استنادا إلى نتائج العمل الجاري حاليا والاستجابات السريرية هي أن ذلك أحد أشكال ما بعد مرض التهاب الأمعاء المعدي (IBD).

عوامل علاجية وأساليب علاج مبتكرة للصقور

ديرك فيرووئرد وتوم بيلي

يشترك اثنين من أكثر أمراض الجوارح الأسيرة انتشارا و هما التهاب الأكياس الهوائية Airsaccullitis والتهاب جلد القدم/انتفاخ أسفل القدم pododermatitis في عدة خصائص هامة. ما زال هذين المرضين يشكلان تحديا للصقارين والبيطريين المعاصرين رغم توفر الطب المتخصص وأدوات التشخيص، وذلك لطبيعتهما المتعددة الأوجه والمعقدة في الغالب. تتميز كلا الحالتين بنمو الغشاء الحيوي وذلك بتكثفات متعددة الأنواع من المكروبات تحيط بها شبكة خارج الخلية تنتج (غَرين بكتيري) ذاتيا حيث تنتج بعض البكتيريا والفطريات بيئة مُطاعِمة مع آليات تواصل داخل وبين الأنواع. تظهر نفس الأنواع البكتيرية ملامح أيضية مختلفة أضافة إلى آليات مقاومة مكتسبة ينتج عنها مقاومة أعلى بكثير لمضادات والعلاج الاستر انتيج بمض برامج وقائية متكاملة تتضمن الجوانب الإدارية وتعقيم البيئة والقدمين والحويت الهوائية والعلاج الاستر التيجي بمضادات المكروبات ضرورية لتحقيق النجاح. يقدم استخدام مطهر فعال والم مضادات والعلاج الاستر التيجي مصادات المكروبات ضرورية لتحقيق النجاح. يقدم استخدام مطهر فعال وآمن مثل مصادات والعلاج الاستر التيجي بمضادات المكروبات ضرورية لتحقيق النجاح. يقدم استخدام مطهر فعال وآمن مثل محموعة منتجات الأواع البكنية المائية التي تحول دون البدء المكروبية والتعليم من المعلومين والحمين والحويصادت الهوائية والعلاج الاستر التيجي مضادات المكروبات ضرورية لتحقيق النجاح. يقدم استخدام مطهر فعال وآمن مثل مجموعة منتجات 100 التطبيقات الهامة التي تحول دون البدء المبكر للأنظمة البيئية المكروبية البالغة التعقيد في المنوية التنا

السلالة وهجرة صقور الشاهين المتكاثرة في شمال أوراسيا

أندرو ديكسون وألكساندر سوكولوف وفاسيلي سوكولوف

تُظهر صقور الشاهين Peregrunes التي تتكاثر في المناطق القطبية بأوراسيا تفاوتا كليناليا من الغرب إلى الشرق، ومنها ثلاثة سلالات يعترف بها معظم علماء الطيور. تتواجد سلالات الشاهين المرشّحة في أقصى الغرب شمال اسكندنافيا وشبه جزيرة كولا في روسيا، ويتدرج شكلها هذا إلى سلالة الكاليس (الكاليدونية) calidus الأفتح لونا التي تتواجد في شبه جزيرة كانين إلى الشرق. أما في شبه جزيرة دلتا لينا فتُظهر الصقور التخطيط الأكثر قتامة واللون الأحمر-البني للسلالة اليابانية التي تجسّد عرق الشاهين الذي يتواجد إلى الشرق في شمال أوراسيا. تكشف مسار الأحرب قرار ال نمط هجرة "متوازي" مع درجة معينة من الاتصال بين مناطق التشتية ومناطق التكاثر، مما يدعم فكرة أن التباين الكلينالي الذي يلاحظ في سلالات الشاهين ناتج عن التدفق المحدود للجينات على طول خط الانحدار الطولي من الخرب إلى الشرق.

تقرير عن أول تسجيل لمشاهدة عويسق أحمر في العراق عمر الشيخلي

قامت منظمة **طبيعة العراق** بإجراء مسح ميداني في الجزئين الأوسط والغربي من العراق في خريفي 2010 و 2011، سجل خلالها مشاهدة لإناث بالغة ولصغار من العويسق الأحمر (اللزيق) Falco vespertinus في منطقة العَلَم، و هي إحدى المناطق التي يعتاد مسحها في محافظة صلاح الدين. لم يسبق وصف هذا النوع كأحد أنواع طيور العراق ولم يسجّله أي من علماء الطيور الذين أجروا أو اشتركوا في المسوحات الميدانية في العراق منذ ستينيات القرن الماضي، رغم أن .Salim *et al* قد ذكروا هذا الصقر دون تقديم أي تفاصيل. بعد مشاهدة دقيقة و مطوّلة لصور صنعة العَلَم من قبل خبراء لجنة سجلات الطيور بمنظمة **طبيعة العراق** فقد تم قبولها كأول مشاهدة دقيقة و مطوّلة لعراق.

قضايا عالمية

السياسة الدولية فيما يتعلق بحفظ صقر الغزال: استعراض للتطورات على مدى العقد الماضي /ندر و ديكسون

تعود أصول القلق العالمي حول وضع صقر الغزال (الشروقي) إلى التغيرات الاجتماعية والاقتصادية والبيئية التي حدثت بعد انهيار الاتحاد السوفيتي في عام 1991، والتي توّجت بتطوير سياسات الصون الدولية في أوائل القرن الحالي. ألخّص في هذه المقالة تطور السياسات المتعلقة بصقر الغزال والنابعة من ذلك التغيير الكبير الذي أثّر في أسيا الوسطى دون أن أغطي تطوّرات السياسة لنفس الفترة في أوربا وضمن الاتحاد الأوربي بشكل خاص. تتسم التطورات السياسية للاتفاقات المتعددة الأطراف كاتفاقية سايتس واتفاقية الأنواع المهاجرة بنموها المتباطئ، وتكون في حالة صقر الغزال معقدة ومثيرة للجدل أحيانا. يستبعد هذا التقرير بالضرورة الكثير من التفاصيل المتعلقة بتطوير السياسات الدولية وحاولت أن أنقل بدقة التطورات كما أراها. يتضمن التقرير المهاجرة المعاجرة بنموها المتباطئ، وتكون في حالة صقر الغزال معقدة ومثيرة للجدل أحيانا. يستبعد هذا التقرير بالضرورة الكثير من التفاصيل المتعلقة بتطوير السياسات الدولية وحاولت أن أنقل بدقة التطورات كما أراها. يتضمن التقرير التطورات المتعلقة بصقر الغزال عامرات المتعلقة بتطوير السياسات الدولية

التوعية العامة والتعليم

مشروع الأعشاش الاصطناعية في منغوليا

نيكولا ديكسون وشيجر ما دامدينسورن

أطلق مشروع الأعشاش الاصطناعية في منغوليا في عام 2009 بعد فترة تجريبية استمرت لأربع سنوات درس فيها الباحثون مستويات الإشغال ومعدلات نجاح التكاثر والبقاء لصقور الشاهين التي تتكاثر في أعشاش صناعية في منطقتين تجريبيتين. أقيم ما مجموعه 5250 عشا صناعيا في مناطق مختارة في سهوب منغوليا. يعمل المستشارون العالميون للحياة البرية IWC، بالنيابة عن هيئة البيئة - أبو ظبي، مع حكومة منغوليا لتطوير تجارة مستدامة لصقور الشاهين تستفيد منها كل من جهود صون تلك الصقور ، والمجتمعات المحلية في منغوليا، والموروث الشاهين الشاهين التو الشرق الأوسط. يقدم برنامج "روابط المدارس" إحدى طرق استفادة المجتمعات المحلية في منغوليا، والموروث الأعشاش الإصطناعية من خلال تقديم توفير موارد للتعليم وروابط مع مدارس خارج منغوليا. البرنامج خمسة أهداف (1) استفادة مدارس منغوليا من مشروع الأعشاش الاصطناعية من خارج منغوليا والموروث المقافي الصقارة في

أهداف مجموعة الشرق الأوسط لأبحاث الصقور MEFRG (www.mefrg.org)

توفير منتدى لتبادل المعلومات بشأن الأمور المتعلقة بالصقور والصقارة فى الشرق الأوسط.

تعزيز و/أو تحسين فهم: التراث الثقافي لرياضة الصقارة العربية استخدام وإدارة أنواع الطرائد المحافظة على الصقور البرية المستخدمة في الصقارة العربية إدارة الصقور في الصقارة التقدم في مجالات الرعاية الطبية والتربية للصقور القضايا الدولية التي تؤثر في الصقارة العربية أو تنجم عنها.

ستتحقق أهداف المجموعة من خلال

عقد لقاءات لورش العمل الإقليمية والمؤتمرات الدولية نشر وتوزيع النسخ الورقية والإلكترونية لنشرة *فالكو* التي تعالج القضايا ذات الاهتمام المشترك للجمعية تنسيق واستضافة موقع ويب يتميز بالفاعلية وإنشاء وصيانة قاعدة بيانات المشتركين

نرحب باستقبال المقالات المقدمة إلى فالكو. يرجى مراعاة أن *فالكو* ليست مجلة علمية، ونرجو من كاتبي المقالات تذكّر أن تلك المواد يجب أن تكون في متناول قرائنا من مختلف الخلفيات كالصقارين و علماء الأحياء والأطباء البيطريين وصناع السياسات. يهمنا تلقي مقالات موثوقة ودقيقة و غنية بالمعلومات تتعلق بالمواضيع المدرجة أدناه

الصقارة: مقالات عن ممارسة رياضة الصيد بالصقور ذات فائدة وأهمية للصقارين العرب

تراث الصقارة: مقالات عن الإرث الثقافي للصقارة ذات فائدة وأهمية للصقارين العرب

إدارة الطرائد: مقالات عن صون وإدارة أنواع الطرائد المستخدمة في الصقارة العربية أو التي تهم الصقارين العرب

صون الطيور الجارحة: مقالات عن صون وإدارة الطيور الجارحة المستخدمة في الصقارة العربية، وكذلك بشكل أكثر عمومية تلك المتعلقة بأي طيور جارحة في الشرق الأوسط

العناية الصحية بالطيور وإدارتها: مقالات عن القضايا البيطرية للطيور وتربيتها وبالذات ما نبع منها من العمل في الشرق الأوسط، ولكننا سننظر أيضا في الدراسات الخارجية ذات الصلة بتحسين صحة الجوارح في الشرق الأوسط

أبحاث علم الأحياء: مقالات عن البحوث البيولوجية في الصقور المستخدمة في الصقارة العربية والتي تغطي قضايا مثل الهجرة والتصنيف والبحوث الجينية الخ

قضايا عالمية: مقالات وتحديثات عن قرارات ونقاشات السياسة الدولية المتعلقة بالصقارة والصون والاتجار وصحة الحيوان ذات الأهمية والعلاقة بالصقارة العربية

التوعية العامة والتثقيف: مقالات عن المبادرات التي يمكن أن تسهم في تعزيز وعي أفضل بالصقارة العربية والقضايا الأوسع المحيطة بها

التحديثات التقنية: مراجعات وتحديثات عن المنتجات والمعدات الجديدة الخ، التي قد تكون ذات فائدة لعلماء الأحياء والصقارين وأطباء البيطرة العاملين مع الجوارح

قسم الصور: صور مثيرة للاهتمام ذات الصلة بالمواضيع التي تعنى الجمعية بها

الطيور الجارحة في الأخبار: ملخصات للبيانات الصحفية الصادرة حديثًا والمتعلقة بالمواضيع التي تعنى الجمعية بها

ما هو الجديد في المطبوعات والمنشورات: مراجعات المؤلفات العلمية التي نشرت حديثًا ذات العلاقة بالمواضيع التي تعنى الجمعية بها

نحن أيضا نقبل وننشر مراجعات الكتب والرسائل. إن كنت في شك حول ما إذا كانت مقالة ما تندرج تحت أحد الفئات المذكورة أعلاه فيرجى الاتصال بالمحررين:

د. توم بيلي (بريد إلكتروني <u>tom@falcons.co.uk</u>) أو د. أندرو ديكسون (بريد إلكتروني <u>falco@falcons.co.uk</u>).

لقد أجرينا بعض التغييرات في تصميم هذا العدد من فالكو وما زلنا نقوم في الوقت الراهن بعملية إعادة للنظر في دور مجموعة الشرق الأوسط لأبحاث الصقور MEFRG . تأسست المجموعة في عام 1994 لتعمل في المقام الأول على تنسيق التعاون بين علماء الأحياء والأطباء البيطريين في الشرق الأوسط في مشروع زرع الرقاقات الإلكترونية (ميكروتشيب) في الصقور . على الرغم من أن مشروع العشر سنوات هذا قد انتهى في عام 2002 إلا أن المجموعة استمرت بالاسم وبإصدار نشرة فالكو. ركزت المجموعة منذ عام 2002 على أن تكون منبرا لتبادل المعلومات عن القضايا استمرت بالاسم وبإصدار نشرة فالكو. ركزت المجموعة منذ عام 2002 على أن تكون منبرا التبادل المعلومات عن القضايا المتمرت بالاسم وبإصدار نشرة فالكو. ركزت المجموعة منذ عام 2002 على أن تكون منبرا التبادل المعلومات عن القضايا المتعلقة بالصقور في الشرق الأوساء البيطريين وعلماء الأحياء والصقارين والعاملين في المتموعة المتعلقة بالصقور في الشرق الأطباء البيطريين وعلماء الأحياء والصقارين والعاملين في المتموعة المتعلقة بالصقور في الشرق الأطباء البيطريين وعلماء الأحياء والصقارين والعاملين في المعلومات عن القضايا واضعي السيرات القدي والمعلي المحددة" (كامراض معينة في الستور) المتعلقة بالصقور في الشرق الأوسط بين الأطباء البيطريين وعلماء الأحياء والصقارين والعاملين في الحفاريا وواضعي السياسات. تضمنت أعداد فالكو قضايا ومواضيع متنوعة من "الصغرى المحددة" (كامراض معينة في الصقور) إلى "الكبرى الشاملة" (مثل القضايا العالمية للمحافظة على البيئة). نرى نحن فالكو كنافذة للنظر "خارجا" و "داخلا" إلى "الكبرى الشاملة" (مثل القضايا العالمية المحافظة على البيئة). نرى نحن فالكو كنافذة النظر "خارجا" و "داخلا" إلى "الكبرى الشاملة" (مثل القضايا التي تحيط بها، ولتزويد صقاري منطقة السرق الأوسط بنظرة متمعنة في القضايا الوسع نطاقا المعارية المحافظة على البيئة). نرى نحن فالكو كو كامراض معينة في القضايا الأوسع نطاق المعاري الحقارة العربية وأهميتها الثولة من معارة والمعانيا التي تحيط بها، ولتزويد صقاري منطقة الشرق الأوسط بنظرة متمعنة في القضايا الأوسع نطاقا التي تحيط بالصقارة العربية، ولإعلام الجمهور الأوسع عن الصقارة العربية وأهمية الثولية.

لقد كانت مسألة الحفاظ على الصقر الحر في العقد الماضي موضع اهتمام دولي، أو لا من خلال سايتس ومراجعة الاتجار ذو الأهمية في عام 2003، ثم في إدراجه في القائمة الحمراء (للاتحاد العالمي للحفاظ على الطبيعة ومواردها IUCN) كنوع مهدد بالانقراض في 2004، ومؤخرا في أول مقترح لإدراجه في الملحق-1 لاتفاقية الأنواع المهاجرة CMS في 2008. نقدم في هذا العدد من فالكو نظرة عامة لتلك التطورات العالمية. شاهدنا في ترادف مع هذا المستوى المتعاظم من الاهتمام الدولي سلسلة من اجتماعات "فوق المقرّر" ومنها "الاجتماع الاستشاري عن الاتجار بالصقور للصقارة" واجتماع "فريق عمل اتفاقية سايتس للصقور" اللذان عقدا في أبوظبي في عامي 2004 و 2005 على التوالي للتركيز على قضايا سايتس، وكذلك "الاجتماع الدولي للخبراء للمحافظة على الصقر الحر" الذي عقد في أبو ظبي في 2009 ليركز على قضايا اتفاقية الأنواع المهاجرة. يبدو أن أبو ظبي قد أصبحت المقر الموسل الذي عقد في أبو ظبي في 2009 ليركز على قضايا التفاقية الأنواع المهاجرة. يبدو أن أبو ظبي قد أصبحت المقر الموسل الذي عقد في أبو ظبي في 2009 ليركز على قضايا اتفاقية الأنواع المهاجرة. يبدو أن أبو ظبي قد أصبحت المقر الموسل لاستضافة تلك الاجتماعات والتي كان آخرها اجتماع " فريق عمل المهاجرة. يبدو أن أبو ظبي قد أصبحت المقر الحر" الذي عقد في أبو ظبي أبو ظبي في 2009 ليركز على

إن هدف فريق عمل الصقر الحر هو "وضع خطة عمل عالمية منسقة تضم نظاما للإدارة والمراقبة من أجل المحافظة على الصقر الحر". توجد بالفعل خطة عمل إقليمية لنوع واحد للصقر الحر في الاتحاد الأوربي، إلا توسيع مجال منطقة التغطية في خطة عمل عالمية جديدة سيعني بالضرورة اعتماد مجموعة مختلفة من المناهج بما في ذلك تلك القائمة على الاستخدام المستدام. يبدو في الوقت الحاضر وكأن فريق عمل الصقر الحر سيركز جهوده في المقام الأول على إعداد خطة عمل المستدام. يبدو في الوقت الحاضر وكأن فريق عمل الصقر الحر سيركز جهوده في مقترحة في الأول على إعداد خطة عمل المستدام المستدام. يبدو في الوقت الحاضر وكأن فريق عمل الصقر الحر سيركز جهوده في المقام الأول على إعداد خطة عمل المستدام. يبدو في الوقت الحاضر وكأن فريق عمل الصقر الحر سيركز جهوده في مقترحة في قرار اتفاقية الأنواع المهاجرة التحديد ماهية إجراءات الحفظ المطلوبة بدلا من "الإجراءات الملموسة" كما هي مقترحة في قرار اتفاقية الأنواع المهاجرة التي أسست هذا الفريق. سيعتمد نجاح فريق عمل الصقر الحر، بعد إنجازه لخطة العمل، على مستوى التمويل الذي التي أسست هذا الفريق. سيعتمد نجاح فريق عمل الصقر الحر، بعد إنجازه لخطة العمل، على مستوى التمويل الذي التي أسست هذا الفريق. سيعتمد نجاح فريق عمل الصقر الحر، بعد إنجازه لخطة العمل، على مستوى التمويل الذي التي أسست هذا الفريق. سيعتمد نجاح فريق عمل الصقر الحر، بعد إنجازه لخطة العمل، على مستوى التمويل الذي التي أسست هذا الفريق. ويعتمد نجاح فريق عمل الصقر الحر، بعد إنجازه لخطة العمل، على مستوى التمويل الذي التي أسست هذا الفريق. سيعتمد نجاح فريق عمل الصقر الحر، وعلى صدقيته بين أصحاب المصلحة من المهتمين بالحفاظ على الحقر وتجارته.

من المهم أن لا ننسى في خضم التركيز على أعداد الصقر الموجودة في البرية أن هناك الكثير من العمل الذي يجري في الشرق الأوسط وخارجها فيما يتعلق بتعزيز إكثار الصقور في الأسر وتحسين تربيتها ورعايتها الصحية كوسائل لتقليل الطلب على الصقور البرية. نقدم في هذا العدد در استين تتعلقان بإدارة وصحة الطيور لهما انعكاسات مهمة على الصقور في الأسر.





Produced by International Wildlife Consultants Ltd. on behalf of the Environment Agency - Abu Dabi

