



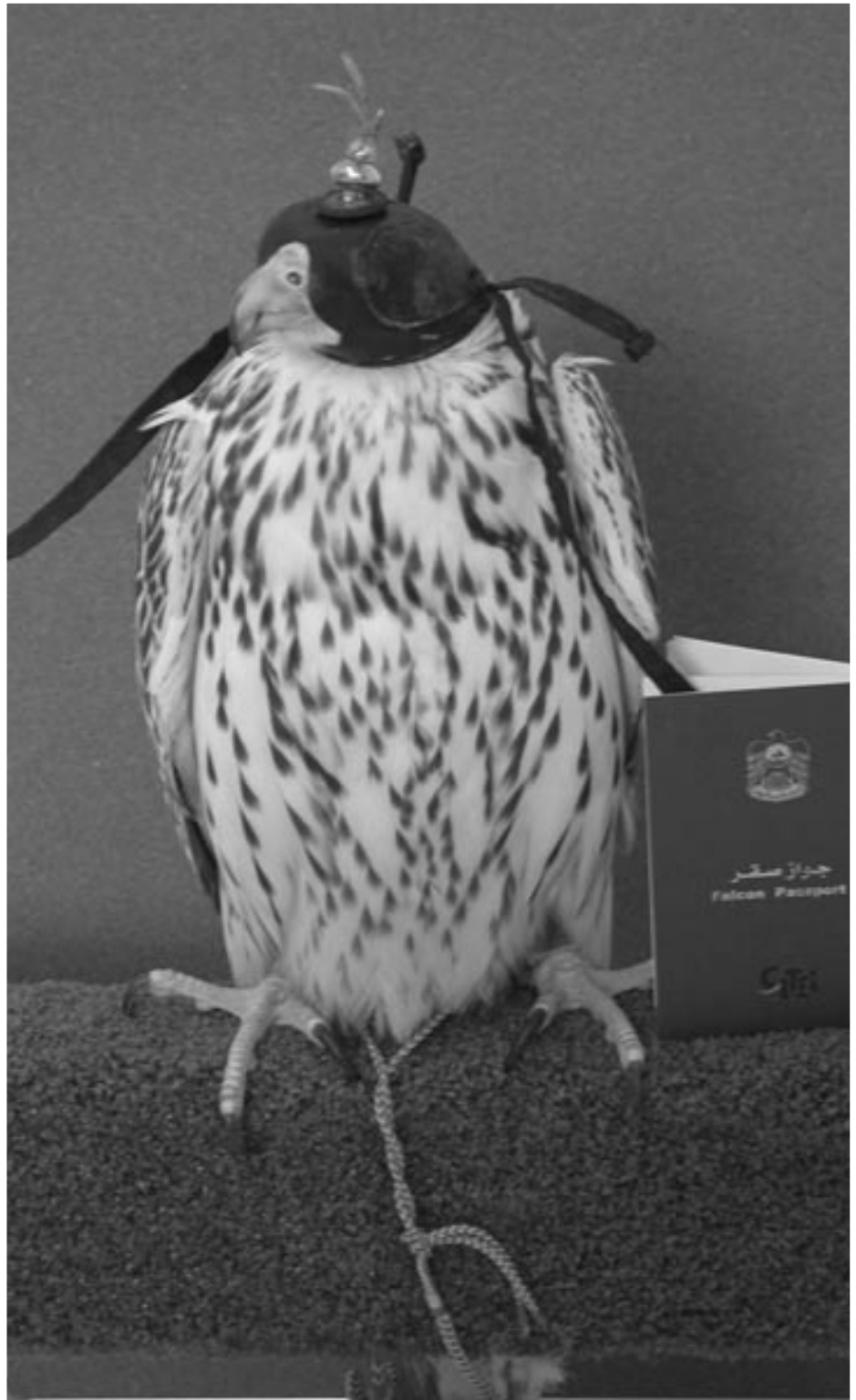
# FALCO

The Newsletter of the Middle East Falcon Research Group  
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# MEFRG Objectives:

**To provide:**

**A central body** for the co-ordination of research activities related to falcons and falconry.  
**A common forum** for the exchange of information and for promoting collaborative research programmes.

**To promote:**

**Research** on health and disease in falcons, falcon moulting in the Middle East, falcon nutrition, domestic breeding.  
**Field studies** on falcon migration, taxonomy, morphometrics, reproductive biology and behaviour.  
**Improved management conditions** for captive falcons through educational awareness programmes.  
**Greater understanding** of falconry as a part of Arab cultural heritage.

**To Hold:**

**Regional and International workshops and conferences** on veterinary aspects, falcon biology topics, falconry and conservation issues.

**To publish:**

**Papers** on aspects of falcon conservation, falcons and falconry.  
**A biannual newsletter/journal** containing contributions on medical, biological and conservation topics of common interest, new developments and recent medical advances.

**Membership:**

Membership is open to any veterinary surgeon, biologist, conservationist or falconer working in the Middle East or any other person interested and contributing in the fields of medical, biological and conservation aspects of falcons and falconry worldwide.

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 Previous issues of FALCO can be read at:  
[www.falcons.co.uk/MEFRG/](http://www.falcons.co.uk/MEFRG/)

**فانم هاوي الصقور**

فانم هاوي الصقور، فاشية الثالثة عشرة من مجلدات الصقور والتربية بها. وهو هتي لتوثيق ويحي أن بالعام الجديد، دوماً من رياضة الصيد بالصقور كما أنه لا يفتقر مجالس الكبار والأولاد ومكافئته برحلات الصيد والتنسيق.

يمكن فانم 120 من رحله إلى السعودية مع والده الصقور، فخر في شايه مصدرة أكبر من الرجال فتمت 17 سياره محليه إلى السعودية، وقد كاتبت رسائله الثانية وكان عند الراة كاتت رحله محطلة حين استعملت بطنها أربعة أنص بريه فوجدت حبها جيداً، فاجازت عائلته الصيد بعد أن كاتت مستعماً بالباء، فلم يكن يعلم أن يسمع الصياح الأخرين من رياضة الصيد بالصقور وخاصة وأنه صيد في وجه صيد ويحيى بن محمد آل فهد من صيدان محترفين ويهرفون الكثير من آداب الصيد واليابه.

فانم فانم له وجه أن يرفع البريق من رأس الصقور حين أن يطقه خبط الطير، والبريق هو نغاد، ويخرج على رأس الصقور، لا أن صقور فانم قوي لا يبالف من راجب السورق الفريسي، حليم، ومعمده لكاتت سنوك وهو من نوع صقور المعمر.

ويقال أنه شاتل صقوراً الأخر اسمه الشراويه ويقام من الصقور سكتن وهو من نوع الصقور أيضاً، كما فانم بأنه يحب أن ينادي بالصقور، من الترحيل فيل أن يطق الصقور والترسل هو صيداً من خيط فم زينه ساكوك، عاتر لا يطقه، أما الكوار فهو محط فم، فله الصقور.

مشكلاً فانم فانم هاوي الصقور الذي إن أفضل أنواع الصقور هي الصقور والعمود الصقور الكفاحين والعمود الكفاحين.

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على خطى صقور - الكفاح (1)

Informing the younger generation is an integral part of nature conservation and environmental awareness. The Falconers Association supplement is aimed at those people on whom future wildlife issues will depend.

**Contributions can be sent to the Editors of FALCO:**  
**Dr Nigel Barton and Dr Tom Bailey**

<p><b>Editorial address:</b></p> <p>Dr Nigel Barton          The Falcon Facility          P.O. Box 19, Carmarthen          SA33 5YL, Wales, UK          Tel: (0044) 1267 253742          Fax: (0044) 1267 233864          E-mail: <a href="mailto:nigel-barton@easynet.co.uk">nigel-barton@easynet.co.uk</a></p>	<p><b>Veterinary contributions</b></p> <p>Dr Tom Bailey          Dubai Falcon Hospital          P.O. Box 23919          Dubai, United Arab Emirates          Tel: 00971 4 3377576          Fax: 00971 4 3379223          E-mail: <a href="mailto:tom.bailey@dfh.ae">tom.bailey@dfh.ae</a></p>
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# Editorial



2002 saw a number of important events which affected falcon populations in the wild and in captivity. The most significant of these was the implementation of the subsequent lifting of a trade ban by CITES which directly affected imports and exports of wild and captive-bred falcons to the UAE. In this issue, there are several articles which were published in the Gulf News on measures taken to reduce illegal trade in falcons and other wildlife and on the implementation of a registration scheme for falcons. In order to reduce the numbers of wild-caught falcons being imported, the UAE were required to establish a registration scheme. ERWDA together with the Federal Environment Agency and the Ministry of Agriculture and Fisheries did a remarkable job in setting up an acceptable system within 6 months when in many CITES signatory countries it has taken many years. In addition to the registration scheme a new law was ratified by President His Highness Sheikh Zayed bin Sultan Al Nahyan enforcing heavy fines and prison sentences for people breaking the law.

In September when the UAE animal markets are usually beginning trade in falcons prior to the new season, shops were empty apart from equipment. There were neither captive-bred falcons to be seen nor wild-caught ones. There seems to have been a similar effect across some of the other Gulf countries and it will be interesting to look at the data from the falcon hospitals at the end of this season to examine the extent of the decrease in trade in wild-caught falcons. Preliminary reports suggest that fewer wild-caught falcons might also be entering Saudi Arabia. Since this is the main user of wild-caught sakers it is a significant change for the better. Maybe trappers in central Asia are beginning to realize that unless there is a market, there is no gain to be made from trapping. It will take several years before the effects are fully noticed.

Articles in this and in previous issues provide first-hand reports of surveys across the saker breeding and wintering ranges. There has been an alarming decrease in numbers in most countries. With a concerted effort this trend can hopefully be reversed but it requires continued effort from authorities in both the exporting and the importing countries.

This year saw the publication by ERWDA of the Emirates Falconers Association magazine 'Al Saggat'. This has been several years in the planning and has been long awaited by falconers in the Middle East. The publication is in full colour and in Arabic and contains many articles

on falcons and falconry in the Middle East. There is also a children's supplement for the younger generation of falconers. It is available to falconers through the UAE Falconers Association at the Abu Dhabi Falcon Hospital.

Also completed this year were the next three video titles in the Bird of Prey Management Series. The subjects covered Health Care, Preparations for Breeding, Imprints and Inseminations. Details of these and how to order can be found at [www.falcons.co.uk/faraway/ffp/](http://www.falcons.co.uk/faraway/ffp/). There are now 6 titles in the series and it is developing into a comprehensive series. It should soon be available in Arabic.

The Editors



AL SAGGAR  
مجلة الجمعية العربية لتربية الطيور  
العدد ١٠٠ - ٢٠٠٢

٦٨٦ صفوا تم إطلاقها في برنامج زايد للإطلاق الصقور

الصقور  
هل تلتفت أُناسنا الأخيرة؟

مرض السومار .. تهدد وجه الصقار منذ الأزلي

نادي صقاري الإمارات ..  
سعي متواصل للإرتقاء بمستوى الصقار

لهدان الكبيسي .. من شعراء وصقاري الطيخ المارزين  
( نادر والمهرين تلتقيان شرق الشامه )

الأقوى : الأسمدة : الأسمدة

ق خاص .. على خطى صقار



# Peregrine Falcon (*Falco peregrinus calidus*)

**Dr. Ya. Kokorev**  
**Extreme North Agricultural Research Institute,**  
**Norilsk, Russia.**

## Introduction

Peregrine Falcons are not evenly distributed across the Taimyr. The maximum density of the Peregrine in Taimyr is recorded in the tundra subzone due to the preferences of Peregrines to hunt in open spaces. Peregrine distribution is very patchy and the density varies significantly. It is not quite clear whether the Peregrine is increasing in numbers across the whole Taimyr peninsula (820,000 km<sup>2</sup>). It is exceptionally difficult to survey the entire territory of the peninsula since most of the region is not connected to settlements by road, helicopters have become exceptionally expensive and unreliable, and there are logistical difficulties to transport fuel into remote places for outboard motors.

We attempted to assess Peregrine numbers in Taimyr using the 'model approach' by extrapolating the density in the 'model' study areas located in a typical Taimyr Peninsula habitat. We chose the Pyasina river valley as a model area. This region is most accessible by small boat and includes some protected areas. The upper and middle part of the Pyasina river was last surveyed in 1999. Of the large tributaries of the Pyasina river we surveyed Dudyppta, Yangoda, Tareya and Biunda. Dudyppta was surveyed in 2001, the others were last visited in 1989. The total lengths of surveyed rivers were Pyasina (670 km), Yangoda with Sonite tributary (150 km), Tareya (110 km).

## Study area and methods

Yangoda river is one of the largest tributaries of the Pyasina river. Its total length is 300 km. Its sources are in the southern part of the tundra subzone of central Taimyr and it flows northwest where it joins the Pyasina river in the typical tundra subzone. The density of Peregrines along this river was estimated in 1989. At that time we found only 4 breeding pairs: one on the lower part of the river, a second in the middle part of the river, and 2 pairs along the 40 km stretch of the Sonite river.

The Tareya river is 200 km long and has its sources in the arctic tundras of the Byrranga mountains. It flows south and crosses a wide ridge of the Byrranga foothills. It has cliffs along most parts of the river. It joins the Pyasina river from the east, some 50 km north of the Pyasina-Yangoda

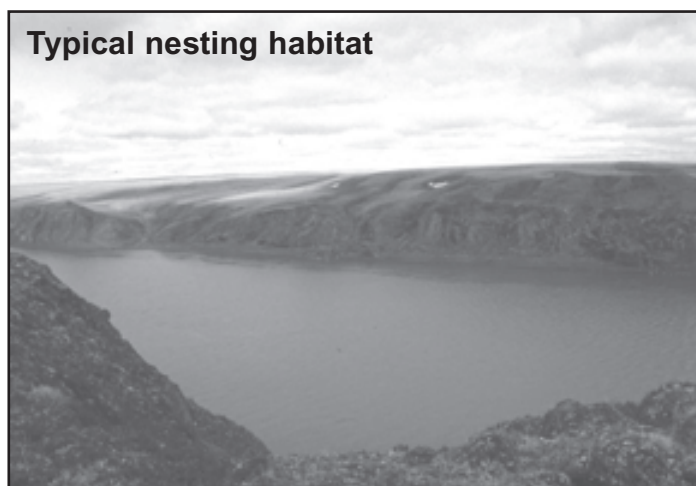
confluence. The river was visited only in 1989 and at that time had 2 breeding pairs of Peregrines.

In 2002 we surveyed, photographed and described optimal and sub-optimal habitats along these rivers. In addition we recorded an aggression index of the breeding pairs, sexed, measured, microchipped nestlings. We also issued questionnaires to local fur trappers and fishermen.

## Results

2002 was a normal year in terms of the thawing of rivers, onset of vegetation period and small rodent numbers. There were no high temperatures recorded this year and in the second half of July there were severe showers, which to some extent influenced the overall breeding success of waders and passerines. Snowy Owl (*Nyctea scandiaca*) did not breed, whereas Rough-legged Buzzard (*Buteo lagopus*) and Herring Gull (*Larus argentatus*) were common. Arctic Fox (*Alopex lagopus*) were at 20% of their usual density. The number of

small mammals was normal and lack of Snowy Owls could be explained by better conditions for them elsewhere on the peninsula. It seems that there was some competition between Peregrines and rodent-eating predators that had to switch to birds. This is especially true for the Tareya river, where many Rough-legged Buzzards and Herring Gulls were breeding along the cliffs.



Four new nests were found whereas two known breeding pairs were not present. One of these territories had a single male and the second one shifted some 8 km to the Khatystakh river. Thus there are 3 new pairs on the Pyasina river since 1999. There were unconfirmed reports of another pair at the Chernaya river, where a clutch of 3 eggs was destroyed by wolves. We visited this place in August but saw no sign of Peregrines. Normally at a failed nesting attempt Peregrines will remain in the territory. At a failed nest in Arbay-Yar both adults were still present at the site in mid-August.

On the surveyed rivers of Yangoda (120 km) and Sonite (30 km) the Peregrines bred on every suitable precipice. In 1989 we found only 2 nests, thus in 2002 the numbers had increased 2.5 times. The significant increase in Peregrine numbers along Yangoda river led us to believe that along the Tareya river with its numerous cliffs the numbers would also have increased. However this was not the case. Along 110 km of the surveyed stretch there were only 2 breeding pairs, as in 1989.

There appear to be more than 10 suitable nesting sites for

Peregrines on this stretch of the river. In all of these places either Rough-legged Buzzards or Herring Gulls were present, the latter in large numbers. The Buzzards were occupying most inaccessible cliffs along the river. It is interesting that the least appropriate nest site on the Yangoda river was occupied by the least aggressive pair of Peregrines. The female took off only when the observer was within 3-4 meters. The male was flying high above the nest. Neither pair on the Tareya river was aggressive and their nests were located in easily accessible sites. There are several explanations for such behaviour:

1. Unwillingness of the Peregrines to nest close to the Herring Gull colonies (although we do know of a nest on the Pyasina river close to the Herring Gull colony and Red-breasted Geese)
2. Lack of available food items
3. Late arrival of Peregrine to the breeding grounds compared to the competitors.

Each of these reasons could be valid and thus the edges of the range might be occupied by less aggressive individuals which fail to occupy better places.

The chicks were ringed and microchipped only along the Pyasina river. The Tareya and Yangoda rivers were very shallow at the time when the chicks were at appropriate age. We did not dare catch the chicks from the Yrvantseva site as the nest was located on the edge of the precipice and the young are prone to jump into the water.



### Conclusions

In the southern and typical tundra subzone of the Pyasina River basin, the Peregrine density continues to rise. Along the 670 km of the Pyasina river, almost all optimal sites are occupied, and along the Yangoda river all sites. In the past 3 years a total of 3 new nests appeared on the Pyasina river. Three new nests have appeared along the Yangoda and Sonite river in the past 13 years. There was no change in the density of Peregrines along the Tareya river, although there were plenty of breeding habitats. There seems to be an increasing trend in the optimal part of the range, whereas there is no trend at all in the marginal habitats.

### Acknowledgements

We are very thankful to ERWDA and Dr. Nick Fox for the financial and technical aid of the 2002 field season, and Eugene Potapov for information and advice. We also thank local fur trappers, fishermen and small boat captains for their valuable help with local logistics.



## Law on Protected Species

Article printed in Gulf News, October 31 2002

### Stiff penalties announced for trafficking in endangered animals and plants

By A Staff Reporter

#### Abu Dhabi

Traffickers of endangered animals, birds and plants or those who promote such activity could face up to six months in prison and pay heavy fines under a new law ratified by President His Highness Sheikh Zayed bin Sultan Al Nahyan.

The law has been published in the official gazette and is to be enforced after six months to put an end to random dealings that have aggravated the plight of some creatures and pushed others to the verge of extinction.

The new law, which was released after nearly two years of discussions, is in line with the Convention on International Trade in Endangered Species (CITES), which involves scores of countries pooling their efforts to save endangered animals, birds and plants.

A decree to put an end to the illegal trade in endangered species has been spearheaded by Sheikh Zayed, a pioneer in the ecological fields and a staunch supporter of campaigns to save creatures and minimise damage caused to wildlife.

#### Illegal trade

The law stresses that any dealing in endangered species will be considered illegal without prior written permission from the competent authority created for this purpose at the Ministry of Agriculture and Fisheries and the Federal Environment Agency.

"Export, re-export and import of any specimen included in the list of banned species is now totally prohibited without a prior permission from the relevant authority," the law said.

"Those found to have exported, re-exported or imported any

specimen of the species included in list 1 without a permission of that authority face a jail term of up to six months and/or a fine of up to Dh50,000 (\$13,600). Those involved in trading in specimens included in the list 2 and 3 face up to three months in prison and/or a fine of up to Dh50,000 (\$13,600)."

The law also metes out a similar punishment to those involved in the acquisition or the sale or an attempt to sell specimens included in the list of endangered species.

A penalty of up to one month in jail and a fine of up to Dh20,000 (\$5,450) was specified for those who encourage the sale of endangered species or who supply wrong information with the aim of obtaining permission from the competent authority.

The law also includes a penalty of up to one month in prison and a fine of Dh30,000 (\$7,725) for

those who forge official documents or logo used by the competent authority.

"The competent authority is empowered to seek support and assistance from the ports and customs authorities, the Ministry of Interior and the Armed Forces to enforce this law. All those parties are required to extend assistance as soon as possible."

Officials said fees for certificates and all other relevant documents and licences regulating such an activity would be set by the cabinet.

The law does not affect those who traded or acquired specimens included in the list of endangered species before it was enforced, but those in possession of such specimens should obtain within a maximum period of one year a document from the competent authority called 'certificate prior to the enforcement of that law'."



# Falcons fly free

**Vitaliy Ryabtsev**  
Chief of Science,  
Baikal Lake National Park,  
P. O. Box 185, Irkutsk 664049, Russia  
Pribpark@angara.ru

In my previous communication (Ryabtsev, 2002) I reported on illegal trapping efforts by Syrian trappers at Baikal Lake National Park (BLNP). Syrian trappers were detained on numerous occasions in summer-autumn seasons of 2001 and 2002 by rangers of the BLNP and local police. However, as they were caught without falcons in hand, they had to be escorted out of the BLNP with only minimal penalties. Recently we found crucial evidence of the activities of illegal trappers, as well as evidence that the trappers were interested not only in Sakers, but in wintering Gyrfalcons. On the evening of 11 November 2002 transport police detained a person at Irkutsk airport attempting to bring 4 falcons in a bag to the aircraft flying from Irkutsk to Ekaterinburg. All of the falcons were females, two Sakers and two white Gyrfalcons. One of the sakers was of rusty-brownish colouration and an adult, another was unusually light and white-headed. It looked like a gyrfalcon, but was smaller with a dark back.

All falcons were restrained by special wraps fixing wing, feet and tail, exactly as the ones confiscated from Syrian trappers in 2001. On the head they had arabian hoods. They had been fed before the journey suggesting they had been trapped and kept prior to shipping by experienced

people. All birds were confiscated.

I recommended to the Department of Natural Resources to release the gyrfalcons as soon as possible. For the Sakers the situation was not so simple. There had been about two weeks of snow cover with temperatures between  $-25^{\circ}\text{C}$  and  $-12^{\circ}\text{C}$  during daytime. The local Sakers had already moved south. Initially we decided to keep the falcons until spring due to the severe winter conditions. However the fear that the birds would suffer by spending a winter in captivity prompted us to release them. Satellite telemetry studies suggest that a Saker can cover up to 600 km in one day. The distance from Irkutsk to Central Mongolia where the falcons could hunt rodents is approximately 500 km. So the decision to release both Sakers and Gyrfalcons was made. Wildlife conservation officers of the Department of Nature Resources, myself and an ornithologist S. Pyzhyanov released the falcons in the southern part of the BLNP. The falcons were fitted with Russian Bird Ringing Bureau rings C578701, C578702, C578703, C578704.

The incident received nationwide TV and newspaper coverage. This gives us some hope that local authorities will manage to control illegal falcon trapping in the Baikal region.

Ryabtsev, V. (2002) Saker Falcon in Pribaikalsky National Park. *Falco* 20: 3.



# Sakers in Southern Siberia 2002

**Igor Karyakin**

**Field Studies Center for the Ural Animal Conservation  
Union Ecocenter Dront,  
P.O. Box 631  
Nizhniy Novgorod  
603000 Russia  
Email: [ikar\\_research@mail.ru](mailto:ikar_research@mail.ru)**

## **Introduction**

During the 2002 field season researchers from the Field Research Center, Nizhniy Novgorod, visited Khakassia, southern parts of the Krasnoyarsk Region, the Republic of Tuva, Altay and Altay region. The total distance covered by car was 8070 km including: 608 km - transit via the Novosibirsk and Kemerovo districts, 599 km - working trail across the Krasnoyarsk district, 343 km - working trail across the Khakassia, 2997 km - working trail across the Tuva republic, 280 km - transit across Altay, 751 km - working trail across Altay. The group included Igor Karyakin, Elvira Nikolaenko, Maxim Grabovskiy, Mikhail Nemtsev, Anna Shestakova and Valentina Baqrashkova.

The surveys covered forest-steppe regions of the foothills of the eastern macro-slope of the Kuznetskiy Altay, northern macro-slopes of the Western Sayan, eastern part of the Tuva depression, Ubsunur depression, foothills of Sengilen, Chikhachev mountain ridge, macro-slopes of the Kuray and Southern Chuya mountain ridges, Chuya steppe, fore-hills of the Altay at the border with pre-Altay plains. All possible nest sites were checked by observation or by climbing. All sightings of Sakers as well as the nests were registered using GPS. Khakassia and the Krasnoyarsk district were checked on the transit. In Tuva the main attention was paid to monitoring of Sakers in the model study areas on the western side of the Tes Khem River, on the southern slopes of the Tannu-Ola ridge and in the elevated steppes of western Tuva. All new nests were recorded and known nests were checked. Chicks were microchipped. In the Altay and Altay district we focussed our attention on the finding of new nest sites in previously unsurveyed territories. During early August Igor Karyakin, Anastasia Rybenko and Mikhail Kozhevnikov re-visited Tuva in order to fit a satellite PTT on a Saker.

## **Weather and ecological situation**

From April to August Tuva was very dry and as a result there were numerous forest fires. According to the official data of the fire protection service 33% of forests in Tuva were on fire, as well as 20% of the steppes. The steppes were on fire mostly in April-May and in July-August. The forests were on fire during most of the summer.

The situation in Altay was very different. There it was very wet with many thunderstorms. In July at elevations above 2000 m it snowed almost every night, snow cover lasting several days. In the Khakassia and the Krasnoyarsk district the numbers of long-tailed susliks (*Citellus undulatus*) was very high compared to previous years. This was reflected

in the number of Sakers. During a standard field day we recorded 100-200 susliks. In Tuva, the Ubsunur depression and the Chuya steppe, suslik numbers were average, but the number of pikas (*Ochotona sp.*) was exceptionally high. Pika counts by vocalisation returned the density of 280 ind/km<sup>2</sup>. In the Sengilen ridges the pika density was lower and maintained the level of 2001 that was 50-100 ind/km<sup>2</sup>. On the Chikhachev ridge there was a decline in suslik numbers, whereas the numbers of pikas - Altay (*Ochotona altaicus*), Mongolian (*O. mongolicus*) and Northern (*O. hyperboreus*) increased and reached the level of 100 ind/km<sup>2</sup>.



**Steppe Eagle**

In the pre-Altay plains and Altay district the food situation for the Saker was bad. There the main habitat is high-stem grass steppes populated by the red-cheeked suslik. However due to exceptionally low grazing this mammal is not available for the sakers except for sparsely distributed summer herder camps, which are close to settlements. This predetermines very patchy Saker distribution. Numerous Steppe (*Aquila nipalensis*) and Imperial Eagles (*Aquila heliaca*) hunt the Altay mole-rats (*Myospalax aspalax*) which are abundant on the steppe as well as on arable land. However the mole-rats are not prey for the Sakers and the Steppe Pika (*Ochotona pallasii*), which is the main prey of Sakers in Southern Urals, does not inhabit these steppes.





# China 2002

Xiaodi Y<sup>1</sup>. and N.C Fox<sup>2</sup>

<sup>1</sup> Institute of Zoology, Chinese Academy of Sciences, Beijing 00080

<sup>2</sup> The Falcon Facility, P.O. Box 19, Carmarthen, SA33 5YL, UK

The field work in China in 2002 aimed to:

1. Continue training the research team built in 2001; establish good links with the conservation authorities in China.
2. Extend the existing network of study areas into unsurveyed areas of steppe in Inner Mongolia.
3. Promote conservation efforts of the Falcon Research Institute, NARC and ERWDA within Chinese conservation and ornithology groups.

The first aim was partially achieved by visits to China in the autumns of 1999 and 2000 by Dr. Nick Fox to establish collaboration with Dr. Ye Xiaodi of the Zoological Institute of the Chinese Academy of Sciences, Chief Wan Ziming of the Forestry Commission, Ministry of Forestry, who is head of CITES authority in China and Dr. Ma Min of the Institute of Zoology in Urumqi, Xinjiang Province. The field teams led by Dr. Ye Xiaodi and Dr. Ma Min were trained in April and June 2001 by Dr. Eugene Potapov. At the same time he initiated surveys in Xinjiang Province, surveying the foothills of Tijan-Shan Mountains. The teams were instructed in climbing, falcon identification, search patterns in semi-desert and mountains, GPS technique and microchipping procedures. In 2002 Dr. Nick Fox joined Dr. Ye Xiaodi's team to the remote areas of Inner Mongolia.

NARC now has 2 trained teams, one from the Institute of Zoology, Chinese Academy of Sciences, Beijing another from the Institute of Zoology, Chinese Academy of Sciences Xinjiang Branch, Urumqi, both capable of carrying out unsupervised surveys. During the 2002 field season the teams were supported by researchers from the Agricultural University of Inner Mongolia (Hot Hot city)

## Surveys

The surveys in 2001 were concentrated in the Xinjiang province, the western-most province of China (Xiaodi and Min). In 2002 surveys were concentrated in Inner Mongolia and aimed to establish the extent of the Saker's range into China and to measure the density of Sakers. In May 2002 Dr. Ye Xiaodi lead his field team in Inner Mongolia surveying the steppe along the Chinese-Mongolian border. At the end of May 2002 they were joined by Dr. Nick Fox and surveyed north-eastern China (Manjuria and Dauria) to the edge of the taiga.

## Results

The observations in 2001 of low nesting density were confirmed by the surveys in 2002. A total of 6 Saker nests were discovered during the whole survey period, of which only 3 nests resulted in breeding attempts.

From these three, one clutch was destroyed by local people, in another, half of the chicks were killed by local people (one chick is thought to have survived) and in the third nest the chicks died due to unknown reasons. Thus in the area surveyed maybe only one chick survived.

The total area of Inner Mongolia suitable for breeding Sakers is 440,000 km<sup>2</sup>. At the measured density of Sakers, the total number in Inner Mongolia is 143 individuals, or 14 breeding pairs, producing 43 chicks per year. However these figures are very unreliable. Further surveys are required before we can estimate the total Chinese population but there might be as few as 200 breeding pairs across the entire country. The causes of the extremely poor breeding success are:

1. Saker nests destroyed and disturbed; chicks taken away by local shepherds and dealers.
2. Adults and chicks trapped for smuggling to Tianjin and Beijing in autumn and winter by local smugglers.
3. The steppe has been reclaimed for agricultural land.
4. Desertification.
5. Pesticides and insecticides widely used.

The following conservation measures were recommended by the Institute of Zoology, Beijing.

1. Curb smuggling of Saker and decrease the official quota for Saker harvest.
2. Implement an environmental awareness campaign
3. Transfer the Saker to Appendix 1 of CITES
4. Stop widespread pesticide use
5. Protect the main breeding area and reduce nest disturbance
6. Establish a captive breeding project.
7. Implement conservation measures on wintering sites.

## Suggestions for future studies

Sakers might breed in small numbers in Alashan mountains, along the Mongolian border, in the Altay foothills and in Qinghai province. The latter also accommodate wintering falcons from Mongolia and Russia as our satellite tracking





has shown. It is intended to carry out full scale surveys of Quinghai province. We aim to survey semi-deserts of Gansu Province and elevated steppes of Quinghai province. There is some anecdotal information on Sakers there from western birdwatchers.

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# Sakers in Kazakhstan 2002

**Anatoliy Levin**

**Institute of Zoology**

**Kazakhstan National Academy of Sciences**

**Akademgorodok**

**Almaty 480060, Kazakhstan**

The main aims in 2002 were:

- 1) to conduct a detailed survey of the mountains in Eastern and Central Kazakhstan to find new Saker nesting areas (northern slopes of Djungarskiy Alatau, southern slopes of Tarbagatay and Manrak mountains);
- 2) to monitor the Saker population trends in south-eastern and eastern regions of Kazakhstan;
- 3) to mark nestlings with microchips
- 4) to measure birds for morphological research.

## Research region and team

In April we conducted nest surveys in the south-eastern part of the Republic. We searched Anarkhay, Serektas, Malaisary and Turaigyr Mountains. Only 3 active nests were found in this region (two of them are new). From the beginning of May we searched the northern foothills of Djungarskiy Alatau ridge (Lepsy and Arkharly Mountains), the Tarbagatay ridge and its southern foothills (Karabas mountains) and the northern foothills of Saur (Manrak Mountains). In mid-June we attempted to find Saker Falcon nests in the xerophytic mountains in Central Kazakhstan. We received information that Sakers were seen in Kungey Alatau and Ketmen. A new territory situated to the east of Almaty on the border of Kazakhstan, Kyrgyzstan and China was searched in July. Here we found three new Saker nests.

In 2002, 74 (91%) of all known nest territories were monitored. 23 new active Saker nests were found and 4 occupied territories. We microchipped 127 nestlings. As in 2001 the research team included only two people. The second participant of the expedition was Dr. Nick Beresovikov, the head scientist of the Laboratory of Ornithology, Institute of Zoology National Academy of Science and a former employee of the Markakul nature reserve.

We present a short description of Kungey Alatau, Ketmen and the mountains in Central Kazakhstan. Kungey Alatau are the frontier mountains between Kazakhstan and Kyrgyzstan. These mountains are young with high tops covered by glaciers. The biggest of them is Khantengry with a height of 7050m above sea level. The northern

slopes are covered with conifer forest. There are a lot of river canyons and vertical cliff faces suitable for Saker nesting. Three nest territories with signs of occupation were seen there.

Ketmen mountains situated between Kazakhstan and China. They are not as big and high as Kungey Alatau. This ridge has snow on the tops and conifer forest on the northern slopes. There are a lot of places appropriate for Sakers to nest. The mountain ridges in Central Kazakhstan are not high with low-grade slopes. Most of them are not appropriate for Saker nesting. There aren't any cliffs there.

All accessible nests are known and they are robbed when the chicks are feathered. By the time of marking at 4-5 weeks of age a lot of nests were already empty. Trying to keep ahead of the smugglers our team visited Saker nests when the age of the chicks was about 3-4 weeks. Moving from south to north we worked with chicks of the same age. One nest was found with very small chicks and another with eggs. When they were visited 3 weeks later they were empty. So that strategy has completely warranted itself. During the 2002 season we microchipped 127 Falcons, much more than in previous years.

## Saker Falcon biology

### a) Saker Falcon nest density in 2002

The Saker situation is difficult in south-eastern Kazakhstan. These territories were monitored in April and only 4 nests were occupied. The density of active nests in eastern Kazakhstan in 2002 was higher than in previous years with 28 nests including 14 new. Most of the new sites were found in ravines with very difficult access. The density of active Saker nests was higher this season in Tarbagatay ridge and its southern and northern foothills too. Eight pairs nested this year in Arkaly mountains (in 2001 only 4 nest territories were occupied). Some territories were occupied in Karabas in 2002 but the birds did not breed. There were 6 nests with chicks in those mountains in 2002.

The main cause for the increasing number of breeding pairs is the restoration of the Red-cheeked (*Citellus intermedius*) and Long-tailed suslik (*Citellus caudatus*) populations in many places. These mammals are the usually prey for Sakers. The depression of their numbers has been remarkable during recent years. Some Sakers which in previous years had occupied territories but not bred, produced young in 2002.

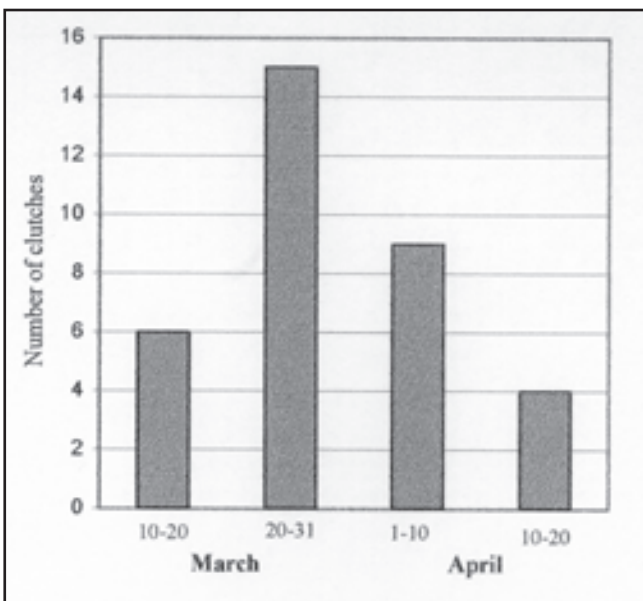
In the Saisan trough, removal of the females during the past 10 years has resulted in a situation where most of the nesting females are now young birds. Not only local people and Arabian trappers take nestlings in that region. It is known that the trappers from Sugaty valley went this year to Tarbagatay in order to steal the Sakers.

**b) Saker Falcon breeding period in eastern Kazakhstan in 2002**

In 2002 Sakers began egg-laying earlier in eastern Kazakhstan and finished later than in previous years. The first eggs appeared in nests in mid-March and most birds began laying towards the end of March whereas in 1997-2000 Sakers began laying at the end of March or during the first ten days of April.

The laying period in low mountains is short while in large mountains it is extended. For example in Arkaly mountains all clutches were laid during one week, in Karabas they were laid for 2 weeks and in Tarbagatay the laying period continued for about a month. The overall dynamics of the Saker Falcon's breeding in Eastern Kazakhstan in 2002 is shown in figure 1.

Figure 1. Laying dates in eastern Kazakhstan in 2002



In the eastern region, chicks usually leave the nest at the end of June or beginning of July. It is thought that the fledglings might remain on the nest territories until the beginning of August before moving south.

**c) Productivity and breeding success**

Clutch size variability in the different regions of eastern Kazakhstan is not known. The nests were only checked after hatching. They were specifically visited at that time because birds were stressed and we wanted to avoid nest desertions. One nest in May was found with 5 eggs. This is the highest clutch size for that region. There were twelve broods that contained 5 chicks.

There were from 2 to 5 young in the nests to the age of 3-4 weeks. As last year, the mean productivity of Sakers in the central ridge of Tarbagatay was higher in 2002

than in other mountains with 4.4 chicks per nest. Similar productivity was found in the foothills of Tarbagatay: Karabas mountains (northern foothills) - 4.2, Arkaly mountains (southern foothills) - 4.0 chicks per nest. This season the productivity of the birds in Karabas and Arkaly Mountains was higher than in 2001 (3.5 and 3.0 chicks per nest respectively). As last year the least productivity was found in Manrak (3.7 young). In 2001 productivity was 2.3 chicks per nest. Saker productivity in the eastern region in 2002 was 3.96 chicks per nest, higher than in 2000 (3.4) and in 2001 (3.2 chicks per nest). Unfortunately it is impossible to comment on the fate of the broods because the study area is too large and every day we moved on.

**d) Microchipping**

In order to be able to identify the falcons both inside Kazakhstan and beyond the Republic, they were microchipped. Overall 127 chicks were marked in 33 nests.

**e) Feeding ecology**

The basic prey item for the Sakers in the south-east of the Republic and in Dshungarskiy Alatau is the Red-cheeked Suslik. Numbers have been very low for the past 3-4 years. In 2002 there was a population increase. In the southern foothills of Tarbagatay mountains the Sakers prey on the same suslik species as well as gerbils (*Rhombomys opimus*) which have also had decreased numbers until recently accounting for the increase in saker breeding pairs and brood sizes.

In the northern part of Tarbagatay and in Manrak mountains the Saker's diet contained the Steppe lemming (*Lagurus lagurus*) the most numerous mammal in that region. However this prey species has not recovered the numbers of previous years which explains the low productivity of Sakers in Manrak mountains both in 2001 (2.3) and 2002 (3.7 chicks per nest).

**Saker Falcon populations in Kazakhstan**

Surveys of the mountains in the southeast of Kazakhstan have shown that the number of Saker territories has stabilized. The same number of pairs nested in Kendiktas, Malaisary and Turaigyr Mountains this season. Local trappers continue to check that territory but they take only the biggest chicks and do not catch the adult birds. It came to our knowledge that the local Saker "specialists" had already gone to Saisan lake valley and to Tarbagatay. Some of them also travel in China and in Russia.

At the moment the Saker situation in eastern Kazakhstan is improving. The number of breeding pairs has increased in all the surveyed mountain ridges. Falcons nested on territories where they were absent last year and productivity also increased. The populations in the east are certainly much healthier than those in the south. Despite preventive efforts, extensive trapping has continued in that region.



# ERWDA Artificial Nest Project

Sumya D<sup>1</sup>., S. Gombobaatar<sup>1</sup>, O. Shagdarsuren<sup>1</sup> and E. Potapov<sup>2</sup>

1. Faculty of Biology, Mongolian State University, P.O. Box 537, Ulaan Baatar 210646A, Mongolia
2. The Falcon Facility, P.O. Box 19, Carmarthen, UK, SA33 5YL

## Introduction

In parts of Mongolia there are areas of open steppe where the Brandt's vole (*Microtus brandtii*) reaches high densities on a cycle lasting several years. Predators come to feast on the voles. However, there are no nest sites so Sakers (*Falco cherrug*) cannot breed there and ground-nesting Sakers are very rare (Potapov *et al* 2002). It is hoped the project will increase the breeding potential in areas where nest sites are a limiting factor. Large numbers of Sakers in Mongolia already use artificial structures such as electricity pylons and telegraph poles. This is a rather recent phenomenon. Previous research studying Sakers in Mongolia did not record even a single nesting attempt on electric pylons. Use of artificial structures for nesting has made more habitats available to Sakers and thus increases the overall numbers (Potapov 1999). Lack of nesting structures in such places means that there are few natural predators and low predation means that there is no natural control of vole populations which often become a pest problem for herders.

## Nest structure design

In spring 2002 as an experiment, we constructed 97 artificial nest sites in a high-density vole area in Mongolia. The nests were made of twigs, skins and bones taken from old Upland Buzzard (*Buteo hemilasius*) nests and placed on scrap iron tripods approximately 2 metres high and 2 km apart. They were partially built in Ulaan Baatar, and then transported and assembled in the study area. Once erected, they were wrapped with barbed wire to try and prevent camels from rubbing against them and knocking them over.

The nesting structures were placed on a completely flat area of steppe. The choice of the area was predetermined by the distribution of vole peak areas and the topography. The study area is a polygon 20 x 23 km. We returned to the site to check occupancy in June (twice) and in October (once). Vole density was estimated by counting vole colonies in 50 m radius around nest structures located evenly across the study area. The counts were repeated in May, June (3 times) and October (once). The counts thus represent the number of colonies in an area of 0.785 ha. Assuming that there are 5.3 individual voles living in an average colony (Bannikov 1954), one can easily recalculate the vole density as individuals/ha.

## Results

### Vole density

The total density of voles in the study was very high and reaches approx. 150 individuals per ha. The voles spread to this study area from the south in mid-March, and were

still arriving and establishing new colonies. The density of voles was unevenly distributed across the study area. We forecast that it will be different in the winter, and will dramatically change in summer 2003. Nevertheless, most of the artificial nest structures will still be within the study area.

### Nest occupancy

Although it was too late for Sakers to start breeding on the nest platforms, the occupancy level of the pioneering species such as ravens (*Corvus corax*) and upland buzzards was surprisingly high. Practically all nests were used as perches by Upland Buzzards, Sakers, Ravens and Steppe Eagles (*Aquila nipalensis*). Four nests were occupied by Upland Buzzards, from which two produced clutches. Ravens showed interest in 2 nests, however the timing of artificial nest structure building was too late for both Ravens and Sakers. From the two Buzzard nests, only one produced chicks. It is suspected that the other nest was disturbed during a snowstorm by a family of herders camped for a night nearby. Generally the spring weather conditions were very bad for breeding. It snowed almost every night in April. In addition, there were several severe dust storms.

### Plans for future study

It is hoped that raptors, and Sakers in particular, will benefit from the provision of artificial nest structures. At the moment the pioneer species have occupied an area which was previously totally unused by them as breeding habitat. Seven of the nest structures have been refurbished in the spring, and it is likely that some 15 - 20 of them will be used by raptor species in future.

### Acknowledgements

Thanks to Igor Karyakin for his help in the field.

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# Lifting of CITES ban

EDUCATION NEWS SERVICE 20-03-2007

GULF NEWS

## 'Action led to lifting of CITES ban'

Crackdown on illegal wildlife trade, concerted efforts by government agencies have made limited trade possible once more

**Abu Dhabi (GOMU)** - The success of the United Arab Emirates in lifting the ban on limited trade in CITES-protected species is a result of concerted efforts by government agencies, according to a report by the United Arab Emirates Ministry of Environment, Water and Climate Change.

Majority of the reasons for the ban were related to the lack of proper monitoring and control of the trade in the region.

**Health benefits** - The report also highlighted the health benefits of the trade in CITES-protected species, such as the use of traditional medicines derived from these species.

Minister of Environment, Water and Climate Change, Dr. Sultan bin Ibrahim Al-Nahyan, said that the lifting of the ban was a significant achievement for the UAE.

**Implementation** - The report outlined the implementation of the ban, which was done in a phased manner. It also mentioned the role of various government agencies in this process.

### INTERVIEW



**Sultan bin Ibrahim Al-Nahyan** - Minister of Environment, Water and Climate Change, UAE. He discussed the challenges faced during the implementation of the ban and the role of various government agencies.

What is the significance of implementing the new trade ban on Exporting and Importing International Trade in Endangered Species of Wild Fauna and Flora?

The ban is significant as it helps in the conservation of endangered species and prevents the illegal trade of these species. It also ensures that the trade is done in a sustainable manner.

How does the ban impact the wildlife trade in the region?

The ban has a positive impact on the wildlife trade in the region as it ensures that the trade is done in a sustainable manner. It also helps in the conservation of endangered species.

Why did the U.A.E. decide to lift the ban on limited trade in CITES-protected species?

The decision to lift the ban was taken after a thorough study and consultation with various stakeholders. It was found that the trade in CITES-protected species can be done in a sustainable manner.

### CITES trade

The report also mentioned the health benefits of the trade in CITES-protected species, such as the use of traditional medicines derived from these species.

The U.A.E. has decided to lift the ban on limited trade in CITES-protected species.

The decision was taken after a thorough study and consultation with various stakeholders. It was found that the trade in CITES-protected species can be done in a sustainable manner.



One of the Gyrfalcons confiscated at Irkutsk airport (see p5) and subsequently released.

# Travelling with Falcons- the new UAE Falcon Passport

**Lisa S. Perry**  
**WWF-EWS**  
**PO Box 45553**  
**Abu Dhabi**

Now falcon owners can travel with their falcons abroad with the help of a special document issued in the UAE, a Falcon Passport. This passport has been created in order to comply with requirements of the international convention, CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora), which regulates the international trade of certain species. The UAE is a signatory member of this agreement and must, therefore, take precautions to ensure proper and legal trade regulations are in place within the country.

The CITES Convention works on a system of Appendices to categorize the threat of endangerment by trade to each species. Appendix I includes species threatened with extinction due to trade. Trade in specimens of these species must be subject to particularly strict regulations in order not to further endanger their survival in the wild. Appendix II includes species which may become threatened with extinction, although not necessarily now, unless trade is not subject to strict regulations in order to avoid utilization incompatible with their survival. Appendix III then includes all species which any Party to the Convention identifies as being subject to regulation within its jurisdiction for the purpose of preventing or restricting exploitation, and needs the cooperation of other Parties to control trade. The UAE has therefore created the Falcon Passport in response to this convention and to keep international trade and falcon transport regulated. Depending on the appendix the falcon concerned is under, it can be registered and granted a Falcon Passport for ease of movement across borders.

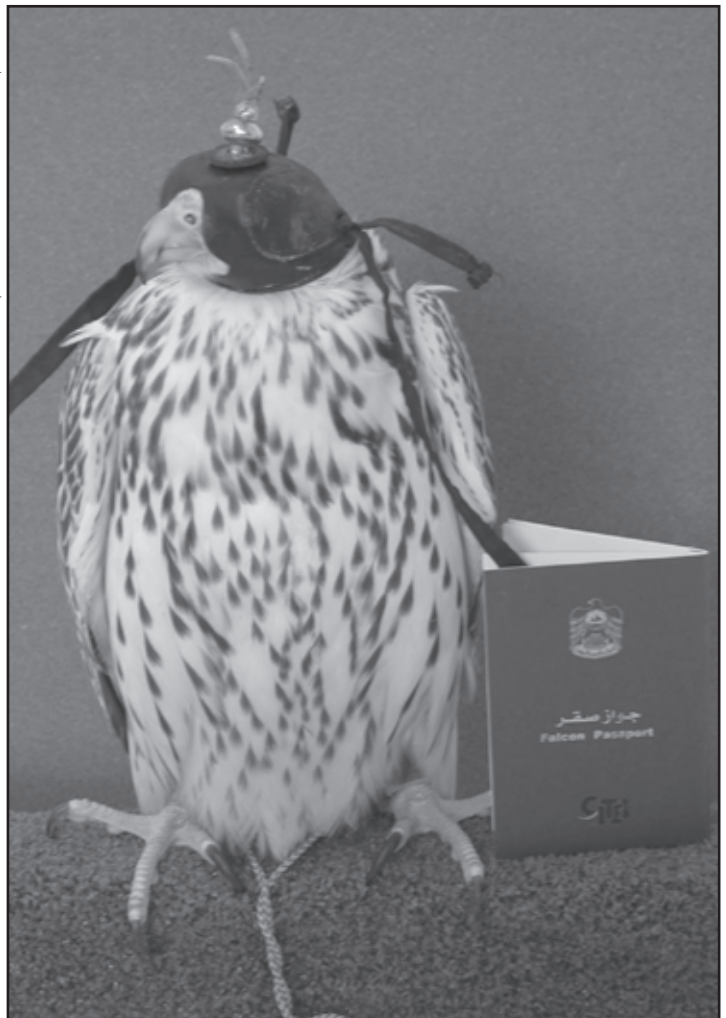
In order to regulate falconry and falcon trade, the Falcon Passport was created and a registration process put into place within the Emirates earlier this year by ERWDA (Environmental Research and Wildlife Development Agency), acting now as the CITES Scientific Authority for the UAE, and the two UAE CITES Management Authorities (Federal Environment Agency and the Ministry of Agriculture & Fisheries) with the help of WWF-EWS. This process allows falcons to travel abroad with their owners as long as the required passport has been issued and is carried by the owner during travels. The Federal Environmental Agency in Abu Dhabi and the Ministry of Agriculture and Fisheries for Dubai and the Northern Emirates are responsible for registering the falcons and issuing the passports.

The birds must be registered before a passport can be issued, which will allow the owner, or an authorized person, to make frequent cross-border trips with the falcon.

If a falcon owner has not registered their falcon, then they will not be issued a passport nor allowed to travel abroad with their bird. In order to be registered, the falcon must have been legally obtained and imported in the UAE.

Falcon registration forms are available within certain falcon hospitals in the UAE. This registration form consists of information to be provided by the owner about himself (contact details) and the bird; including sex and breed of the bird, country of origin, and whether it is captive bred or wild, as well as required CITES information. After the registration process, the passport will be issued containing the same information as well as the CITES Appendix the bird is listed under, ring and PIT (Passive Induced Transponder) numbers, registration and expiry dates and the place of registration.

Further information can be obtained by contacting the Federal Environmental Agency of Abu Dhabi or the Ministry of Agriculture and Fisheries of Dubai, or you can contact your local falcon hospital.



# Update from the Fahad bin Sultan Falcon Center, Kingdom of Saudi Arabia

Jesus L. Naldo DVM and Jaime H. Samour, MVZ, PhD  
 P.O. Box 55  
 Riyadh 11322,  
 Saudi Arabia

The Fahad bin Sultan Falcon Center in Riyadh, Kingdom of Saudi Arabia is now in its fifth year of operation (see previous article in *Falco*, issue no. 14, July 1999). Its permanent facilities, which include the Falcon Specialist Hospital and Research Institute, are to be completed in early 2003. The hospital is fully equipped with the latest and most modern medical and laboratory equipment in order to provide the best clinical care to falcons in the form of in-patient and out-patient services, forensic examinations and clinical diagnosis laboratory investigations.

In addition, the hospital maintains a comprehensive computer-assisted database (Clientrax®) allowing easy retrieval of information on individual birds, statistical analysis of the number of patients according to species or breed, number of visits, frequency of diseases, and financial reports within a specified period.

Although this is the first time that Saudi falconers have had access to modern medical care within Riyadh, the response from the public has been overwhelming. Since its opening in September 1998 until August 2002 a total of 6169 falcons of different species were presented for examination at the FSFC which comprised 10,867 different visits. Most falcons presented to the hospital belonged to Saudi falconers but an undetermined percentage of birds came from Bahrain, Kuwait, Qatar, and the United Arab Emirates. This report presents the number of falcons of different species examined at the FSFC.

Table 1 illustrates the number of falcons and the number of visits during the 1998-2002 season. There was an increase of 244% in the number of patients over four years. In per year basis, the increase was 110% during the 2nd season, 48% during the 3rd season, and 10% during the 4th season. There was an increase of 374% in the number of visits during the 1998-2002 season. In per year basis, the increase



was 117% during the 2nd season, 66% during the 3rd season, and 31% during the 4th season.

From the total of 1345 falcons examined during the 2nd season, 1989 falcons during the 3rd season, and 2197 falcons during the 4th season, 1282 (95%), 1724 (87%) and 1893 (86%) were new patients, respectively. An unknown percentage of birds may have been entered into the database more than once under the name of different owners. This problem was corrected with the implementation of a compulsory PIT implantation program by the Center which begun in February 2002. With the PIT identification chips, birds have only one record number in the database even if they change ownerships.

Table 2 illustrates the number of falcons presented for examination categorized according to species. Saker falcons accounted for 79%-82%, while peregrine falcons accounted for 13%-15% of the total birds examined. There was a slight decrease in the number of saker falcons from 82% to 79%, and the peregrine falcons from 15% to 13% over four years. However, this could be due to an increase in interest in other species. The gyr falcon, which comprised only 1.3% of the total birds in the 1st season, increased to 3% at the end of the 4th season. Likewise, the number of gyr hybrids increased from 1.3% to 2.4%. Lastly, the number of lanner falcons also increased from 1% to 2.4%.

Table 1. Number of falcons presented for examination at the Fahad bin Sultan Falcon Center from 1998-2002.

	Total no. of falcons	No. of new falcons	Total no. of visits
Sep 1998 - Aug 1999	638	638	942
Sep 1999 - Aug 2000	1345	1282	2049
Sep 2000 - Aug 2001	1989	1724	3408
Sep 2001 - Aug 2002	2197	1893	4468
<b>TOTAL</b>	<b>6169</b>	<b>5537</b>	<b>10867</b>



Table 2. Number of falcons of different species presented for examination at the Fahad bin Sultan Falcon Center.

	1998-1999	1999-2000	2000-2001	2001-2002
<b>Saker</b>				
male	2	3	9	13
female	519	1096	1608	1721
<b>Total</b>	<b>521</b>	<b>1099</b>	<b>1617</b>	<b>1734</b>
<b>Peregrine</b>				
male	0	0	4	11
female	94	185	250	279
<b>Total</b>	<b>94</b>	<b>185</b>	<b>254</b>	<b>290</b>
<b>Gyr</b>				
male	1	1	1	3
female	7	14	36	62
<b>Total</b>	<b>8</b>	<b>15</b>	<b>37</b>	<b>65</b>
<b>Lanner</b>				
male	0	4	3	3
female	6	23	33	49
<b>Total</b>	<b>6</b>	<b>27</b>	<b>36</b>	<b>52</b>
<b>Gyr/Saker</b>				
male	0	1	0	1
female	3	10	18	16
<b>Total</b>	<b>3</b>	<b>11</b>	<b>18</b>	<b>17</b>
<b>Gyr/Peregrine</b>				
male	0	0	0	0
female	5	7	24	35
<b>Total</b>	<b>5</b>	<b>7</b>	<b>24</b>	<b>35</b>
<b>Saker/Peregrine</b>				
male	0	0	0	0
female	1	1	3	4
<b>Total</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>4</b>
<b>TOTAL</b>	<b>638</b>	<b>1345</b>	<b>1989</b>	<b>2197</b>

The majority of saker, peregrine and lanner falcons were wild caught juveniles and adults. While the captive bred gyr falcons and hybrid gyr falcons were from the US, UK, Germany and other European countries.

The most common diseases observed were respiratory related problems, trichomonosis and bumblefoot. Confirmed cases of aspergillosis were relatively low compared to the reported number of cases in the UAE probably due to the lower relative humidity prevalent in the Central region of the Kingdom. Most cases of aspergillosis were in fact diagnosed in falcons from the Eastern (coastal) region. Other respiratory conditions, however, were very common including bacterial airsacculitis, sinusitis, rhinitis and secondary airsacculitis due to *Serratospiculum sp* infection. Internal parasitism with *Serratospiculum sp* was very common, followed by trematode and *Caryospora sp* infections.

Trichomonosis and bumblefoot were the next common

conditions observed and they were presented in different forms, sizes and shapes. Falcon pox cases were about five times more common than Newcastle disease. Collision-type injuries were common including fractures, dislocations and avulsions. Several cases of gunshot injuries were also observed.

Lead toxicity was a common finding although the number of cases was reduced over the past four years. The number of birds with ammonium chloride toxicity was also greatly reduced during the last season. This is mainly attributed to the educational campaign being carried out by the Center.

For more detailed information on the causes of morbidity and mortality of falcons examined at the Fahad bin Sultan Falcon Center, please watch out in the incoming issues of the Journal of Avian Medicine and Surgery.

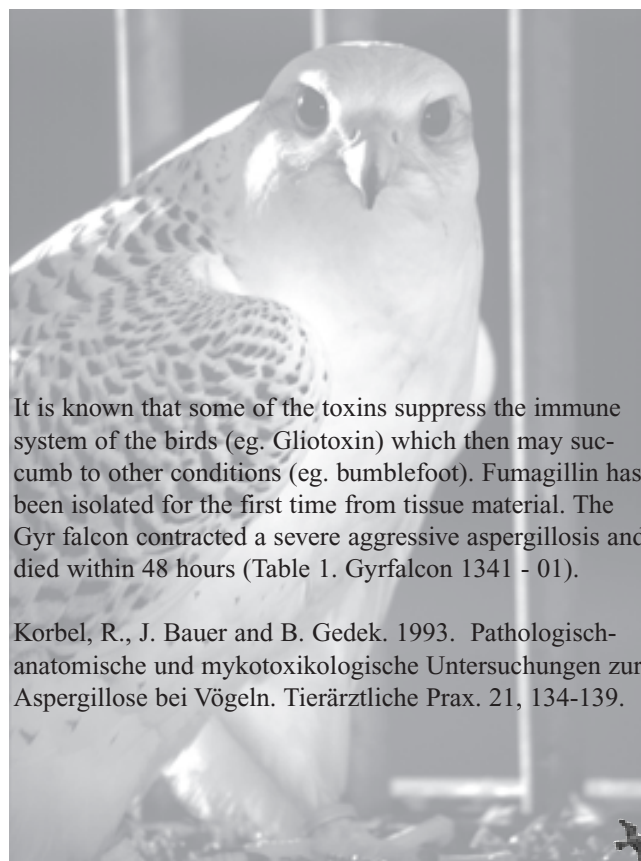


# Aspergillus fumigatus - a toxin producer

U. Wernery,  
 Central Veterinary Research Laboratory,  
 PO Box 597  
 Dubai, United Arab Emirates

Aspergillosis, caused by infection with *Aspergillus (A.) fumigatus* and less commonly by other *Aspergillus* species, is a prevalent and very costly respiratory disease of falcons. *Aspergillus fumigatus* is a ubiquitous saprophyte and opportunistic fungal pathogen, and inhalation of airborne conidia is the principle mode of exposure. The pathogenesis of aspergillosis is highly complicated especially because most of the strains are toxin producers. Which toxins are produced has not been thoroughly investigated. However, to date several toxins have been identified (Table 1). Most of the toxins show a strong cytotoxic effect in cell cultures (Korbel et al., 1993).

During our investigations on raptor aspergillosis we observed that over 95% of fungal isolates from aspergillosis lesions were *A. fumigatus* of which more than 50% were toxin producers. The main toxins found, were: Gliotoxin, Fumitremorgen B, Verruculogen and Fumagillin. These toxins are not only found in culture supernatant of cultured *A. fumigatus* strains, but also isolated from tissues (eg. lung, airsac, liver) surrounding the fungal lesions.



It is known that some of the toxins suppress the immune system of the birds (eg. Gliotoxin) which then may succumb to other conditions (eg. bumblefoot). Fumagillin has been isolated for the first time from tissue material. The Gyr falcon contracted a severe aggressive aspergillosis and died within 48 hours (Table 1. Gyrfalcon 1341 - 01).

Korbel, R., J. Bauer and B. Gedek. 1993. Pathologisch-anatomische und mykotoxikologische Untersuchungen zur Aspergillose bei Vögeln. Tierärztliche Prax. 21, 134-139.

Table 1: Fungal isolates and its toxins from raptors necropsied in Dubai\*\*\*

D-No	Falcon species	Material	Fungus	Toxins			
				Gliotoxin	Fumitremorgen B	Verruculogen	Fumagillin
2102-97	Falcon	Lung	<i>A. fumigatus</i>	neg	33.1 µg/ ml	neg	neg
2202-97	Falcon	Granuloma	<i>A. fumigatus</i>	6/1 26µg/ ml	neg	neg	neg
2403-97	Gyr	Strain	<i>A. terreus</i>	neg	neg	neg	neg
1642-97	Hybrid	Strain	<i>A. fumigatus</i>	neg	neg	24.4 µg/ ml	neg
1632-97	Hybrid	Strain	<i>A. fumigatus</i>	61.5 µg/ ml	neg	neg	neg
1587-97	Gyr	Strain	<i>A. fumigatus</i>	8.2 µg/ ml	39 µg/ ml	neg	neg
213-97	Gyr	Strain	<i>A. fumigatus</i>	neg	122.8 µg/ml	25.8 µg/ ml	neg
879-97	Gyr	Strain	<i>A. fumigatus</i>	70 µg/ ml	93 µg/ ml	48 µg/ ml	neg
1224-01	Gyr hybrid	Strain	<i>A. fumigatus</i>	neg	neg	neg	8.8 µg/ petri dish
1153-01	Gyr	Strain	<i>A. fumigatus</i>	neg	neg	neg	56.5 µg/ petri dish
1141-01	Gyr hybrid	Strain	<i>A. fumigatus</i>	neg	neg	neg	32.6 µg/ petri dish
1134-01	Goshawk	Strain	<i>A. fumigatus</i>	neg	neg	neg	12.1 µg/ petri dish
1341-01	Gyr*	Strain	<i>A. fumigatus</i>	4600 µg/ petri dish	neg	neg	neg
1341-01	Gyr**	Lung	<i>A. fumigatus</i>	neg	neg	neg	110** µg/ petri dish
1345-01	Gyr*	Strain	<i>A. fumigatus</i>	1200 µg/ petri dish	neg	neg	neg

\* From Sultan  
 \*\* This is the first time that Fumagillin has been isolated from any tissue  
 \*\*\* Toxin test done by Prof. Bauer, Freising, Germany  
 neg = negative

# Barbary Falcon Studbook

**David Le Mesurier (Manager)**

**Nad Al Shiba Avian Reproduction Research Centre**

**PO Bo 5715**

**Dubai**

**United Arab Emirates**

**david@avianmanagement.com**

## Background

In the 1980's whilst working as manager at the Al Faisal Falcon Center in Saudi Arabia, I was able to send back to the UK a small number of unrelated Barbary Falcons, *Falco pelegrinoides pelegrinoides*. There were at that time only a few birds held in the UK, Europe and USA. In order to minimize inbreeding I decided to establish a studbook for the species and also for the Red-naped Shaheen, *Falco pelegrinoides babylonicus*.



## Methods of data collection

I had data on my own birds and birds held by a few breeders that I knew in the UK. Since this species is registerable in the United Kingdom the Department of the Environment held on its files details of all the UK population. Mark Britton at the DETR kindly collated the data for me and provided me with a print out detailing all the birds on their files, together with all hybrids from the species. The kind of data provided is as follows:

### *Studbook data for Barbary falcons*

- . Ring numbers of bird
- . Origin - Captive, Imported
- . Hatch date, where known
- . Date 1st registered
- . Current status - Live, Dead, Lost, Exported
- . Parent ring numbers
- . Previous rings numbers if the rings had changed

For reasons of confidentiality there was no data that linked any bird to its owner, or breeder. The DETR also sent out a mail shot to all holders, past and present, in the UK. This consisted of a description of the project together with a data collection form. I received a very good response from many of the holders in the UK. This enabled me to follow-up on many birds. I then searched the Internet for ref-

erences of Barbary Falcons and contacted anyone I could who I knew held the species. I have published a preliminary data set on my web site, [www.avianmanagement.com](http://www.avianmanagement.com), to enable breeders to minimize inbreeding and select unrelated birds for pairing. I also have a data submission form on the site.

## Studbook management

The studbook currently holds data on 185 birds. The data is held on a database written in-house for the project using Visual FoxPro. This tracks the baseline data on each bird as well as its movements from holder to holder. The program links into Population Management 2000 (Pollak et al, 2000) to produce the necessary genetic analysis.

I hope to publish the full studbook in the summer of 2003, in PDF format, and make this available via my web site.

If any readers have Barbary falcons or Red-naped Shaheens that are not on the studbook please could you use our online form to submit the data so that your birds can be included in the studbook. All data submitted will be held in confidence and no data relating to any person will be released without their written permission.

## References:

Pollak, J. P., R. C. Lacy and J. D. Ballou. 2000. Population Management 2000, version 1.13. Chicago Zoological Society, Brookfield, IL.





# Announcement - Creation of an IUCN Veterinary Specialist Group for North Africa and Middle East

The International Union for Conservation of Nature and Natural Resources (IUCN) is the world's largest and oldest global conservation organization. The IUCN Species Survival Commission (SSC) is a knowledge network of 7,000 members working in almost every country of the world and is the largest of IUCN's six commissions. Members include wildlife researchers, government officials, zoo employees, marine biologists, wildlife park managers, and experts on birds, mammals, fish, amphibians, reptiles, plants, and invertebrates. Through more than 120 Specialist Groups, the SSC assesses the conservation status of the species, and prioritises action to reduce threats to biodiversity, conduct research and on-ground conservation action, contributes to global conservation policy, and provides advice to decision-makers and international conventions. One of these Specialist Groups is the IUCN Veterinary Specialist Group (VSG).

The VSG held its first workshop to plan the future role of the organization within the IUCN SSC in June 2002 in the USA. The meeting was organized to develop a new vision for the VSG, identify strategies to work toward this vision, and to design a new organizational structure suited to achieve the Group's goals. The new mission statement for the VSG is:

"The IUCN Veterinary Specialist Group is a collaborative multidisciplinary network supporting and promoting the health of wildlife and wildlife management as core components of ecosystem and biodiversity conservation"

The statement highlights the groups commitment to a multidisciplinary approach that will help to ensure a future rich in biodiversity where the health of wildlife and ecosystem is maintained not only by natural processes but also protected by sensible management practices and appropriate policies. The importance of the VSG's participation in conservation efforts and sustainable use strategies is strongly supported by the inherent science-based, problem-solving orientation of its members.

Regional Coordinators have been appointed by the VSG CO-chairs to help identify new members and other expert resources in the regions, and to route most of routine communications among members in the regions.

We would like to inform you of the formation of the North African and Middle East Group of the IUCN Veterinary Specialist Group. The regional co-ordinators for the group are Jaime Samour and Thomas A. Bailey.

The Group already has good contacts and representation in the Kingdom of Saudi Arabia and the United Arab Emirates, and we are especially interested to hear from people working in the wildlife health field in other North African and Middle Eastern countries.

It is clear to many of us involved with wildlife conservation and management in the region that there are important contributions that veterinarians can make to the success of projects, but we are handicapped by a number of factors. Some of these factors include:

- Poor awareness of wildlife health issues by regional government departments and agencies charged with nature protection and conservation.
- Little understanding by policy makers and general public on how wildlife health issues can impact directly on human living standards, either through environmental degradation or through zoonotic disease risk.
- Poor communication and interaction between the few wildlife health professionals working in the different countries in the region.
- Insufficient regional training opportunities for veterinarians working in this specialist field.

In the short term we would like to hear from wildlife health professionals interested in contributing to the formation of the North African and Middle East VSG Group. Once we have established a Group we will work with the members to create a Regional Action Plan.

We think that better communication between wildlife health professionals in the region can be achieved by establishing an e-mail group, publishing a wildlife health bulletin, organising meetings and facilitating training workshops. We would also like to raise awareness of wildlife health in the region through interaction with the media.

We look forward to hearing from veterinarians interested in helping to create a Regional Group with us.

Yours sincerely

Jaime Samour MVZ PhD  
Fahad bin Sultan Falcon Center  
P.O. Box 55  
Riyadh 11322  
Kingdom Saudi Arabia  
Phone/fax: 00966-1-4567723.  
Email: falcon@shabakah.com

Thomas A. Bailey BSc BVSc, Cert Zoo Med, MSc (Wild Animal Health), PhD.  
Dubai Falcon Hospital,  
P. O. Box 23919,  
Dubai, United Arab Emirates.  
Phone: 00971-4-3377576.  
Fax: 00971-4-3379223.  
Email: tom.bailey@dfh.ae

# Letters to the Editor

Dear sir

Avian veterinarians working in the United Arab Emirates have recently held several meetings to discuss topics of mutual interest. The aim of the meetings is to open communication channels between the vets working at various establishments.

The first meeting, at the Emirates Falcon Hospital in Dubai, was held to share experiences of Amyloidosis in captive falcons. Several falcon breeders attended. Vets and breeders discussed the incidence, etiology and diagnostic features of the disease. The vets agreed that amyloidosis was often seen as a sequel to chronic inflammation seen in aspergillosis and pododermatitis cases. Further research is required to determine the role of stress and as yet undiagnosed infections in the pathogenesis of the condition. Breeders were concerned that cases of Amyloidosis have been seen without any evidence of a primary inflammatory disease. The vets agreed that Amyloidosis should be considered when performing pre-purchase check-ups of older gyr hybrid falcons.

The topic at the second meeting held at the Emirates Falcon Hospital, was Chlamydiosis in falcons. Most vets based a diagnosis of Chlamydiosis on a positive ELISA antigen test associated with clinical signs of disease in the patient. Reference was made to the classification system recommended by the American Veterinary Medical Association

where cases are described as suspected, probable and confirmed. Discussion focused on the fact that the specificity and sensitivity of the test was in question. Most vets felt they would be more comfortable with PCR and immunohistochemistry tests before they could classify the falcon cases as probable or confirmed. The fact that large numbers of clinically normal falcons are chlamydia positive suggests that the clinical significance of chlamydiosis in falcons is open to debate. Doubt over the diagnosis led most vets to decline to treat with doxycycline for 45 days. Further research is required in this field.

Further informal meetings are planned and any vets working in or visiting the region, who have a specific interest in avian or wildlife medicine are welcome to attend and share their experiences.

PeterMckinney MVB MRCVS  
Wildlife Protection office  
Dubai  
PO Box 27942  
UAE

Private Email [peatvet@emirates.net.ae](mailto:peatvet@emirates.net.ae)



16 October

Dear All,

I just wanted to write a short note to update MEFRG readers on the current falcon-trading situation in Pakistan.

The dealers are in a quandary on how to get passage birds across to the traditional Middle East markets.

1. They are currently using Qatar, Kuwait, Bahrain and Saudi to try to move birds out from Pakistan. The current feedback is that they are not having much success apart from getting a few consignments of really top rated birds across. This means that lower quality birds are not really being actively taken across.

2. Stocks of eyas male Peregrines, Barbaries, etc are sitting around in the souks with hardly any or no buyers.

3. Peshawar is overstocked with Sakers coming in from Afghanistan. The traders are desperate for any sale. I was told the other day by a trader that a very pale Sakret was sold for under US\$ 150. This bird would easily fetch US\$ 1,500 under normal conditions. Prices for female Sakers have also dropped through the floor.

4. What may be a point of great concern is the very low numbers of Peregrines being trapped. Talk is that the wild numbers are low accounting for the few birds coming in for sale. Besides the quality of the birds coming in is also very poor. Compared with last year, the population is virtually down to a tenth.

5. The Houbara migration has started. We have started receiving reports of sightings. Few trapped birds have already come in to the market for sale.

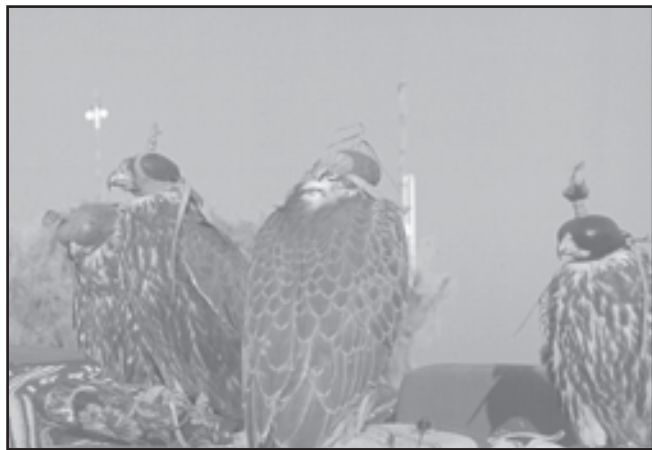
6. I am in discussion with a few people to set up a Falconers club or association and I am studying ways to go about this. We have a newly recruited falconer who has recently joined a friend and myself. So that makes a total of three of us and I guess with three we can at least make a beginning.

I would just like to add that with the CITES control on the movement of birds we are after a long time seeing kestrels and other passage birds back in nature. It is a beautiful sight to once again see the birds back. Although numbers are very low but given the situation I feel they will make a healthy comeback should the trade controls continue.

Do please let me know should any of you require further information or clarifications. I would also be very keen to learn from our other Members on the situation in the UAE, Qatar, Saudi and Bahrain.

Regards to all.

Mahmud Rizvi



Dear Sir,

The editorial on "Medical Malpractice and Falcon Health in the Middle East" (FALCO, January 2002) comes at a time where we see in Falcons an increasing number of cases of over-the-counter treatment, non-response of the clinical condition to strong antibiotics/antifungals and immunosuppression due to drug abuse.

Many bird owners rely on the advice of non-veterinarians in treating various clinical problems. Broad-spectrum antibiotics in some cases are used without proper indication. Their use will reduce the normal alimentary tract flora and render the bird more susceptible to potential pathogens.

Antimicrobials drugs like Erythromycin, Enrofloxacin are recommended by these non-veterinarians at subtherapeutic doses or for a therapy interval of 2 to 3 days which is seldom effective. Using such subtherapeutic treatment encourages development of resistant strains. In some cases, by the time the falcon reaches the veterinarian and receives appropriate care, it is often already too late.

However, in field conditions the use of antiparasitic/ certain emergency drugs by technicians is justified where veterinary advice is not available at hand. Similarly, in certain field conditions especially in the training camps, in some situations technicians might be required to perform minor surgeries. But the practice of some non-veterinarians performing major soft tissue surgeries with little knowledge of the Anatomy of the site should be discouraged. Increasing the awareness among the Falconers regarding the hazards of drug abuse/inappropriate treatment might help tackling the issue to some extends.

Drs. Juliet Joseph and Andres Pohl  
Abu Dhabi Falcon Research Hospital  
Post Box:77  
Abu Dhabi, U.A.E.



16 November

Dear Sir

1. As a surprise the Peregrine falcons were trapped in much greater numbers than passage Sakers. On average each dealer has by now pushed through an average of 50 birds. I met with one dealer who has sold as many as 68 birds with 32 still awaiting shipment.

2. Although there was a rush at the beginning of the season with sakers coming in, this seems to have died out. The reasons are attributed to the War in Afghanistan (traditionally the main supplier) and the very thin wild population in Pakistan.

3. Up until last year China was a very large supplier of Sakers, mainly coming in from the Gobi and Taklamakan desert regions. Some birds also came in from as far as Mongolia. The Chinese have this year have clamped down on the movement of birds. I am advised by contacts on the border that a

few traders have actually been locked up. They were arrested trying to smuggle birds in to Pakistan using the Karakoram highway.

4. Last week, I saw a news clip in which the Punjab government released 100 + houbara bustards recovered from illegal traders. Not surprisingly the birds were released in an area where an Arab hunting party is hunting !

5. Last week, I wrote to our local Wildlife department informing them about the International Association of Falconers. I would like to use this platform to suggest to them ways in which they could improve conditions for our passage birds and other Birds of Prey

Regards

Mahmud Rizvi



## What's new in the literature

**T.A. Bailey. (2002) The Role of Demographic and Genetic Resource Management in Maintaining Small Populations of Falcons in Captivity: The Example of the New Zealand Falcon (*Falco novaeseelandiae*) Captive Breeding Programme and a Pilot Study to Cryopreserve Semen from Falconidae Using Field Techniques. M.Sc. in Wild Animal Health Thesis. University of London. 89 pp.**

Abstract: A demographic and genetic review of the New Zealand falcon (NZF) (*Falco novaeseelandiae*) captive breeding programme (CBP) was conducted using the SPARKS studbook program. Additionally, a practical method for semen cryostorage in Falconidae was assessed with a view to developing a genetic resource bank (GRB) to support the captive management of threatened raptors, such as the NZF.

The dataset of the NZF CBP (1974 - 2002) was 74 males, 37 females and 10 birds of unknown sex. The current living population of 18 birds was based on five wild-caught founders, which have all died. The relationships between the founders were not known, but DNA fingerprinting suggested that four birds were siblings. Two scenarios for genetic analysis were simulated: 1) all founders were unrelated; and 2) four founders were siblings. Studbook analysis demonstrated many demographic and genetic problems with the NZF CBP including: 1) imbalanced age and unequal sex ratios (2?:1?); 2) unequal founder representation; and 3) high inbreeding coefficients. The mean inbreeding coefficients in the current population for both the unrelated founder (0.093) and related founder (0.276) simulations were high.

The GRB study provided information on the characteristics of fresh and frozen-thawed semen from three groups including: peregrine falcons (*Falco peregrinus*); hybrid falcons; and gyrfalcons (*Falco rusticolus*). The mean spermatozoa concentration was 14.50 X10<sup>9</sup> per ml (11.80 - 17.83; 95% CI) and mean motility was 61.9% (55.2 - 68.6%) in fresh samples of all groups. Significant variations were observed between individual birds and between groups for spermatozoa concentration in fresh ejaculates, and between individual birds in motility and viability in frozen-thawed samples. While the levels of post-thaw motility (4.3%; 3.06-5.47) and viability (16.4%; 12.07-20.65) were low, the results demonstrated that semen can be successfully frozen using simple techniques.

These results, integrating studbook analysis with GRBs have implications for the management of captive raptors kept for conservation or commerce.

Thanks to Dr Nick Fox and staff at the Falcon Facility, Wales, UK for providing the falcons, data and facility with which to conduct this study.

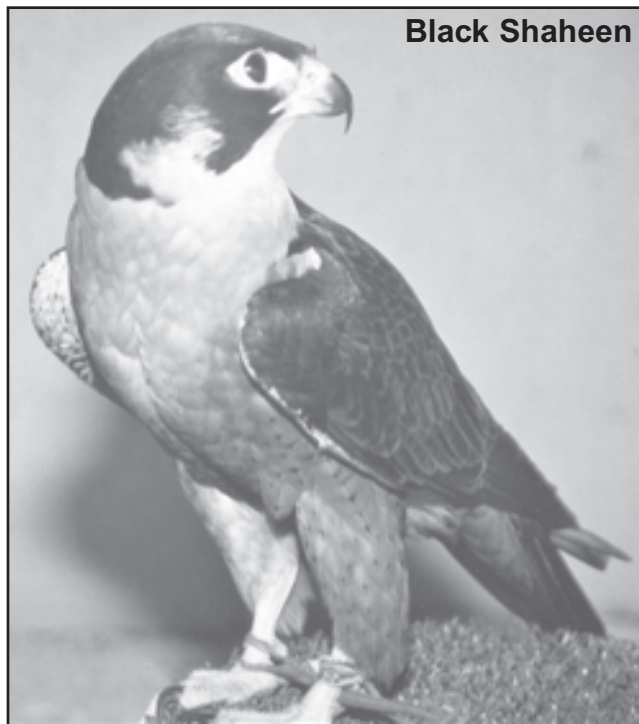
**J.H. Samour and J.L. Naldo. (2002) Diagnosis and Therapeutic Management of Candidiasis in Falcons in Saudi Arabia. Journal of Avian Medicine and Surgery. 16(2): 129-132.**

Abstract: From 1998 to 2001, a total of 3,760 falcons were presented at the Falcon Medical Research Hospital of the Fahad bin Sultan Falcon Center, for clinical examination. From this total, 11 (0.3%) adult (>1 year old) falcons, including eight saker falcons (*Falco cherrug*), two peregrine falcons (*Falco peregrinus*) and one lanner falcon (*Falco biarmicus*) were admitted for treatment of candidiasis. Affected falcons showed general clinical signs including reduced to total absence of appetite, the shredding and flicking of food, regurgitation and progressive weight loss. The diagnosis of clinical candidiasis was made through clinical signs, endoscopy examination of the upper digestive tract, the observation of typical *Candida albicans* blastospores on samples obtained from the crop and by mycology cultures. The primary therapy consisted on the use of a miconazole preparation applied q12h for five consecutive days. Miconazole proved to be an effective, fast and inexpensive antifungal agent suitable for the treatment of candidiasis in captive falcons.

**J.H. Samour and J.L. Naldo. (2002) Diagnosis and Therapeutic Management of Lead Toxicosis in Falcons in Saudi Arabia. Journal of Avian Medicine and Surgery 16(1):16-20.**

Abstract: A total of 3251 different falcons were examined at the Falcon Medical Research Hospital of the Fahad bin Sultan Falcon Center, Riyadh, Kingdom of Saudi Arabia from September 1999 to March 2001. From this total, 96 falcons (2.9%), including 78 saker (*Falco cherrug*), 12 peregrine (*Falco peregrinus*) and 6 lanner (*Falco biarmicus*) falcons, were admitted for lead toxicosis treatment. From the 96 falcons, only 34 (35.4%) had lead pellets or lead fragments in the gastrointestinal tract as detected through radiology. In all cases with lead pellets present in the ventriculus the blood lead level was >65µg/dl. However, in 62 (64.5%) of the cases, there was no evidence of lead pellets or lead fragments present in the ventriculus. The blood lead levels in these cases ranged between 25.5µg/dl to >65µg/dl, thus confirming the diagnosis of lead toxicosis. Ca Na2 EDTA was administered undiluted intramuscularly at the dose rate of 50mg/kg Q12h for 2 to 23 consecutive days. The mean reduction of lead concentration in circulating blood was 83.9% (range 72.6% to 94.15%, n=22). Treatment with the chelating agent was extended for up to 23 consecutive days in some cases without observing any deleterious effect.

Jesus L. Naldo DVM and Jaime H. Samour, MVZ, PhD  
P.O. Box 55  
Riyadh 11322,  
Saudi Arabia



**Black Shaheen**

**Di Somma, A. and Garlinzoni, M. (2002) Trichomoniasis in high performance falcons. Proceedings of the Australian Association of Avian Veterinarians, Brisbane. Pp 251-254.**

Abstract: Trichomoniasis is the oldest known and most common disease affecting raptors. The aim of our study was to estimate the prevalence of captive falcons affected by *Trichomonas* sp. in the United Arab Emirates. The infection rate in pigeons, the natural reservoir of disease, was investigated as these birds play an important role in falcon training and feeding. In the period from September 2000 to March 2002, a total of 2,654 falcons were examined at the Dubai Falcon Hospital. Eighty five raptors were positive for *Trichomonas gallinae* (3.1%). To assess the prevalence of the disease in pigeons, in March 2002, three groups of birds, used for falconry training, were examined. The percentage of *Trichomonas* sp. positive pigeons was higher than in previous studies in the UAE. The range in the 3 groups was from 52% to 99%. In falcons the treatment consisting with carnidazole (25 mg/ kg once) was less effective than dimetridazole (50-70 mg/Kg for 5 days). In pigeons treatment with Carnidazole (for 1 or 2 days) failed, whilst, after the therapy with dimetridazole (20g in 30 litres of drinking water) all the birds were negative. Considerations of this study: the increasing awareness of the falconers and the use of alternative food reduced the *Trichomonas* infection rate in falcons. Dimetridazole is very effective and safe for falcons and is essential for the prophylactic treatment of the pigeons.

Antonio Di Somma  
Dubai Falcon Hospital  
P.O. Box 23919  
Dubai  
United Arab Emirates  
email: dfh@emirates.net.ae

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