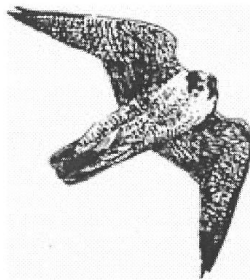


Falco



Middle East Falcon Research Group

National Avian Research Centre

Abu Dhabi, United Arab Emirates

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Newsletter No. 8, February 1997

Letter from the Chairman's office

Jaime Samour, Head of Veterinary Science, National Avian Research Centre,
P. O. Box 45553, Abu Dhabi, United Arab Emirates.

I would like to extend my best wishes for the New Year to all the members of the Group. I do hope that the New Year will bring happiness, joy and success to you all and your families.

This year promise to be full of pleasant surprises and dreams come through for many members based in the Middle East. New projects and developments are in the horizon offering endless opportunities. In this respect, the National Avian Research Center (NARC) in the United Arab Emirates has been incorporated into a much larger organisation, the Environmental Research and Wildlife Development Agency based in Abu Dhabi.

The Agency was created in 1996 under Royal decree No.4 by H. H. Sheikh Khalifa bin Zayed Al Nahyan, Crown Prince of Abu Dhabi.

The Agency was established to protect the environment, nature and its biological diversity in the United Arab Emirates. The main objectives of the newly created Agency are:

- To carry out research studies and comprehensive surveys of the environment and wildlife in order to design conservation strategies and set up priorities.
- To assess land and water utilisation and to propose the optimal use of these resources.
- To identify and set up plans for the establishment of wildlife sanctuaries.
- To coordinate research, policy and conservation activities with government institutions, organisations and research centres in the country and abroad.

- To establish national executives capable of implementing environmental and wildlife policies.
- To design and implement effective educational and public awareness campaigns on wildlife and the environment.

As a result of this transformation, the Veterinary Science Department of NARC is also expanding. We are in the process of building the largest Wildlife Veterinary Research Centre in the region. The new facility is been built near the city of Abu Dhabi and it will be integrated mainly by a large hospital, to provide out-patient and in-patient medical services, and clinical-diagnosis and research laboratories.

The Centre will deal mainly with avian species including falcons, houbara bustards, stone curlews and avian pets, such as Passeriformes and Psittaciformes. However, the Centre will also be involve in research activities on native fauna in collaboration with on-going research programmes of the Agency. We are already drawing up some exciting projects and new ventures.

The Middle East Falcon Research Group will be allocated some administrative space in the new hospital, adjacent to a public awareness unit. We will also recruit an assistant to deal with office and administrative issues of the Group.

We will keep you posted of any development and new activities. The Group constantly needs your active participation. Please keep in touch. We are always delighted to hear from members. Thank you all for your support during 1996 and lets look forward for a productive and successful 1997.

“To have striven, to have made an effort, to have been true to certain ideals - this alone is worth the struggle. We are here to add what we can to, not to get what we can from, life”

Sir William Osler

Arab falcon discovered in the Arctic

Report by Helen McDonald, Falcon Programme, National Avian Research Centre, Penllyn Falcon Facility, Penllyn Farm, College Road, Carmarthen, Dyfed, Wales, SA33 5EH, U.K.

National Avian Research Center (NARC) scientists travelling by boat down a remote Arctic river made a surprise discover this summer. Flying overhead was a wild peregrine falcon wearing Arab jesses!

"We were surprised and delighted" said Dr. Nick Fox, leader of the NARC expedition. "She must have been lost on a hunting trip and made her way back to the breeding grounds. We found her rearing three healthy chicks."

Peregrines, known to the Arab falconers as *Shaheen*, are trapped every autumn as they migrate across Arabia. Renowned for their speed in flight, they are a popular bird in Arab falconry. The sighting of this particular peregrine is good news: it proves that ex-falconry birds can successfully re-adapt to the wild. More astonishingly, it is strong evidence that falcons trapped in the Gulf may have flown all the way from Siberia.

The peregrine was rearing her family on the Taimyr Peninsula, a vast expanse of the Arctic tundra 2,500 km north-east of St. Petersburg, Russia. Covered by thick snow and ice for most of the year, the peninsula comes alive for a few brief weeks in the summer when the snow melts and the ground is covered with flowers and nesting birds.

NARC is studying peregrine falcons here in a collaborative project with the Wildfowl and Wetlands Trust, UK (WWT) and the Extreme North Agricultural Research Institute, Russia (ENARI). WWT is studying the unusual relationship between the peregrine and the red-breasted goose. The ENARI is giving logistical support.

The NARC study intends to answer some of the fundamental questions concerning the biology of the peregrine in the Taimyr Peninsula. Nothing is known about its population distribution and densities, predators and disturbance. Little is known about its migration patterns. The Director of Falcon Management and Research of NARC, Dr. Nick Fox and Raptor Biologist, Chris Eastham, joined the other field teams in Siberia in July 1996. Over a period of ten days, they visited eight peregrine nests, banded and tagged adult and young falcons and obtained much valuable data on peregrine biology and behaviour. The

Taimyr study area is so far north that they worked in 24-hours of daylight.

Satellite technology

The peregrines of the Taimyr Peninsula are large, pale coloured peregrines of the subspecies *Falco peregrinus calidus* and are one of the long-distance travellers of the bird world. Twenty-four hour darkness and deep snow prevent the peregrine from spending the winter in the breeding grounds, so the peregrines move south. They may fly from the Arctic as far as South Africa every winter. Many peregrines of the subspecies *calidus*, are trapped every autumn in the Gulf States for falconry but no-one knows exactly where these falcons spend the winter, the exact route of migration or the time they spend travelling. To help answer these questions, Dr. Fox and Chris Eastham fitted 34g satellite transmitters to two adult peregrines using a harness made of a soft Teflon ribbon. Females were chosen because they are much larger than male falcons and better able to cope with the extra weight. NARC has used similar transmitters to successfully track saker falcons, houbara and kori bustards. The transmitters send a signal which reflects off an orbiting weather satellite 1000km above the earth. Data from the transmitter is sent to NARC via a computer in France and the position of the bird is plotted on a map.

By November one of the peregrines had flown over 3,500 Kms south and arrived at the borders of Pakistan. NARC scientists are keenly watching to see where she will spend the winter. The results are important for the future of the peregrine.

"All over the world, falcons are under threat from habitat loss, persecution and contamination by pesticides," said Dr. Fox. "Once we know which countries these falcons travel through we can better understand the threats they might face and plan conservation schemes accordingly."

Next year it is hoped that technological improvements will result in smaller, lighter transmitters which can be used to tag both male and female falcons.

Microchips

Nine falcons were marked using PIT's (Passive Induced Transponder) inserted just beneath the skin. Each PIT has a unique code number that can be read using a hand-held scanner.

PIT-tagging these peregrines is part of the PIT Scheme, a successful international programme run by NARC through the Middle East Falcon Research Group. Free-living and captive falcons are tagged by vets and scientists; captive falcons are scanned at falcon dealers and falcon hospitals and the code numbers are stored in a central database. The aim of the scheme is to further understand falcon migration and the numbers of falcons used in Arab falconry; essential information for conservation programmes on these species.

Toxicology studies

Blood was taken from adult and young peregrines to be analysed for pesticide contamination. Pesticide poisoning has been a serious problem for peregrines in many parts of the world, including parts of Russia. Peregrines can accumulate high levels of pesticides, such as DDT because these poisons are magnified through the food-chain, reaching their highest concentrations in top predators like the peregrine. At very high levels pesticides kill peregrines. At lower levels they make falcons lay thin-shelled eggs which break before they can hatch.

From the number of healthy young chicks observed, the Taimyr peregrine population seems to be relatively unaffected by pesticides: analysis of the blood samples will determine if this is the case. The blood will also be used for health studies and in DNA tests to

find out the genetic relationship between peregrines and other species of falcon.

Falcons and geese

NARC scientists also helped the WWT team study the strange relationship between ground-nesting peregrines and the brightly coloured red-breasted goose.

"The geese are about the same size as peregrines, so falcons could easily prey on them," said Christ Eastham. *"But the falcons hardly ever attack the geese. In fact, the geese choose to nest close to peregrine nests. Some geese sit on their eggs a couple of metres away from incubating peregrines."*

John Quinn, of the WWT team is studying this strange relationship. It is one that benefits both falcons and geese.

"The aggressive peregrine seems to protect the geese from foxes and their predators by diving at them and driving them away, while the vigilant geese alert the ground nesting peregrines to approaching danger", he explained.

The field teams saw peregrines knocking gulls and buzzard into rivers after they had been warned by calling geese that the intruders were close by.

Co-operation and teamwork between the falcon and the goose benefits both species. Similarly, international co-operation between NARC, WWT and ENARI is working to ensure that the peregrines and the red-breasted geese of the Taimyr Peninsula nest, breed and migrate safely in years to come.



"The further I advance along the path of life, the more do I think work a necessity. In the long run it becomes the greatest pleasure".

Falcons and falconry in desert poetry

Report by Jaime Samour, Head of Veterinary Science, National Avian Research Centre,
P. O. Box 45553, Abu Dhabi, United Arab Emirates.

The Sheikh is listening attentively to a man reciting a verse about his favourite falcon. Old and young falconers are gathered around the camp fire grasping every word of the poet. In the old, but noble, liquid eyes of the Sheikh there is silent pride. The poet is recounting a tale of a hunting trip. He eloquently describes with fluent and exquisite expressions the beauty and the perils of the desert, the skill and determination of the falconers travelling for days under extreme weather and braving sand storms. At the pinnacle of the tale, the poet begins describing the virtues of the main actor of the tale, "Amash" the favourite falcon of the Sheikh. He commends the size of its body and the colour of its plumage. He compliments the size of its eyes and the length of its talons. He admires its strength and tenacity in the hunt. He praises its loyalty and service. The poet finishes his account. There are murmurs of approval and admiration. There is a smile in every face just visible with the dim light of the fire. The Sheikh looks over his shoulder to avoid being seen by his companions as he wipes away a tear from his eyes.

Nowhere in the world there is such a mystical and intrinsic relationship between falconer and falcon as in the Middle East. For centuries poets have recited their poems under camp fires or at the Courts of Caliphs, Kings and Sheikhs, captivating the audience with tales saturated with respect and affection for falcons and their hunting ability.

Poetry is still a way of expression for Arabs in which they salute the brave, the powerful, the gracious. Yet, poems are not made only for Kings or Sheikhs, but also for the Arabian horse, the gazelle, the falcon and the favourite quarry in falconry in the Middle East, the houbara bustard.

Arab poets have said:

"One day we agreed with our Sheikh to go together on a hunting expedition. We prepared all things needed and hurriedly directed ourselves towards the hunting place. Our Sheikh is an easy going man. He is a lion with swift movements.

He is strong in will and can reach whatever place he likes".

"Each falconer appreciates his falcon when hunting bustards. It comes down like lightning amid strong wind and thunder. One hunter succeeds in catching bustard, another waits for them to fly by him so that he may hunt them".

"We stayed there as long as God had willed us to stay and brought the best bustards God willed us to hunt. Our leader then commanded us and took us directly to Wahibi's tribe. We left the mountainous plains to find ourselves in the desert. We left the valley to find ourselves in another. The falconers shall never forget this hunting expedition. They wish such a happy day would return. In the desert, they were all alone, with no problems whatsoever. They lived the genuine Bedouin life, away from artificial urban life. They passed by Amira valley on a cloudy day, not annoyed, not even by the difficulties caused by the floods. The hunting season is the best time of the year and they wish it would return. They return home after hunting with their Sheikh who visited them, may he live long and remain the good mannered and the source of their pride and support".

Ahmed Al Kindi

"The falcon took precautions and prepared for the fight with determination. It struggled hard to get free of its owner's hand. It got free and directed itself towards the flock of bustard. With a real intent to fight, not to pretend. While flying, a big bustard came forth to fight, it was a fated bustard. It was like "Habeel" with no considerate thought, thought with decorated robes. With its white robes it looked like a sheep deceived by the wolf.

The falcon got hold of the bustard with its claws”.

Umair bin Rashid bin Afisha

“Nawwaf saw the bustard.
The one that all Arab hunters wish to see.
It went to hunt bustard freeing itself from the hunter’s hold.
Not looking at anything behind.
When the falcon came face to face with the bustard, the latter felt helpless.
It realised that it would get hold of it and spread its feathers.
When the falcon directed itself towards it, the sound it made was like thunder.
A cry that filled the bustard full of fear.
The falcon was sure it caught its bustard and made all other bustards around it run away with fear.
Even the fleeing bustards which go away.
It goes after them even if they reach the sky.
Even the bustards which have impressive muscular breast are frightened themselves upon hearing its cry and change their course to escape”.

Mana Sa’id Al Otaiba.

“I want you not only to hunt bustard, but also to be accurate in striking the target.
Even if one of the birds had long, strong legs and body.
You must attack it in a way faster than the flashes of lightning.

Deceive it and seize it all of a sudden with your claws.
Grasp it and take off its feather to make it unable to fly.
In return, I shall make your house clean and tidy.
Your pillow shall be one made of pure natural silk.
Your hood shall be made of the best soft leather.
Yours jesses shall be made of pure matting”.

“My falcon was lost in the desert and I was looking and crying for it all my day.
Do not be worried! A lot of people who are great die all of a sudden for one reason or another.
You sit sad and look to the sky looking for it.
We lived long days with this falcon.
We spent long nights telling tales about the heroic deeds of that falcon”.

Bin Afeeshah Al Hajiri

Who is there among us who could deny the existence of a mystic relationship between Arab falconers and their falcons after reading these passages?

Book review

'The Lion and the Gazelle' by Patrick Humphreys and Ismael Kahrom, Comma International Biological Systems, Gwent, UK. ISBN 0 95139776 1. 224 pages. J28.00 Sterling.

According to the publishers, this book is the first to explore the major species of mammals and birds in Iran, both as they exist now and as they have evolved in the past. The authors make it clear that they are concerned not only with living creatures, but with the way that animals have been depicted in Persian (Iranian) art including paintings, carpets, jewellery and ornaments.

The book is divided into four main sections. The first of this covers acknowledgements, preface and introduction and four useful pages on “wildlife and habitat conservation”.

The second section (part one) is concerned primarily with mammals including information on domestic species, such as the camel (*Camelus dromedarius*), large and small free-living terrestrial species, brief mention of bats and two pages on whales, dolphins, dugongs and seals. There is also some material on reptile.

The third section (part two) covers birds and its 78 pages provide reader with a

paragraph (sometimes more) on most species, and varying amounts of text on avian families. There are nineteen pages on raptors, which four cover members of the Falconidae. The Persian names are given and there is a figure of a 13th century cup, depicting hawking.

The fourth and last section consists of two Appendices which cover the history of polo, pigeon towers and falconry in Iran, a chronology of events spanning the period from 2,500 BC to the present, six pages of references and further reading and an index. Readers of "Falco" will be particularly interested in the section of falconry. This, alas, only comprises a little over three pages of the text, but it provides a useful resume of the history of the sport and of its past and present practice in Iran. It is encouraging to read that all species of raptor are protected in Iran and that falconers "have played a leading role and are mostly staunch allies of the conservation movement".

This is an attractively produced volume which includes several pages of coloured plates, many black-and-white photographs and some line drawings by the junior author. The pictures are almost entirely of animals. The frequent historical allusions, often with quotations, poetry and proverbs, add spice to the text.

This volume cannot be considered to be solely a reference book to the mammals and birds of Iran. Indeed, the amount of information the author gives in each species is relatively sparse and there are no substantial data on numbers or distribution maps. However, the text

provides a useful review of "warm-blooded" animals in Iran and a commentary on their likely status. More importantly, however - bearing in mind the current global emphasis linking wildlife protection with human needs and cultural traditions - the book draws attention to the role played by animals in Iranian society over the millennia. Thus, it can be argued that the inclusion of Appendices on polo and falconry and discussions of some domesticated species as well as wild animals, may well prove to be invaluable if they encourage a strong conservation ethic both amongst Iranians themselves and those Westerners who visit the country and care about its future.

"The Lion and the Gazelle" can be recommended to those who live in the Middle East or have an interest in its culture. To read the history of Persia and that country's role in promoting art and scholarship, is to be reminded of the importance of the area in human development and spread of civilised values - historical facts that are so often unknown to, or ignored by, contemporary commentators on the international situation. For the wildlife enthusiast the book provides handy reference to some of the major groups of animals found in Iran, while the historian or social anthropologist will learn much from its pages about the intimate and largely inseparable links - epitomised, perhaps, by falconry in the UAE - that exists between the peoples of this region and the animals that share their lives.

Professor John E. Cooper

News and views

Serratospiculum sp update

Late in 1996, members of the Middle East Falcon Research Group based in the United Arab Emirates sent *Serratospiculum* worms for identification to Dr. L. M. Gibbons at the International Institute of Parasitology, St Albans, United Kingdom. The specimens were mainly obtained from saker falcons (*Falco cherrug*) during routine post-treatment retrieval. After studying the worms, Dr Gibbons reported that there are two species near to our specimens which are very closely related, namely *Serratospiculum chungii*, Høepli and Hsu, 1929 from *Falco* species in China and *S. seurati*,

Bain and Mawson, 1981 from Falconidae from North Africa. Dr. Gibbons reported that these species are mainly separated by the shape of the epaulettes on the cephalic region, lateral position, bordering the mouth opening. The shape of this feature in the specimens from the saker falcons most closely resembles that described for *S. seurati*. All other features fit the description by Bain and Mawson, 1981. Therefore, Dr. Gibbons concluded that the specimens from the Middle East were *S. seurati* (= *F. attenuata* Rud., 1819 *sensu* Seurat, 1915). The morphological studies carried out by Dr.

Gibbons included light microscopy and scanning electronmicroscopy analysis.

An extensive bibliographic research, comprising published material for the last 75 years suggested that the life cycle of *S. seurati* is unknown.

We are just beginning to understand a bit more about *Serratospiculum* sp affecting falcons in the region. We know now the name of one of the species, but there could be more

than one. Members of the Group in the Middle East are invited to preserve specimens of *Serratospiculum* retrieved from the body of Falconiformes. Ethanol 50% is adequate. We are planning to send further samples for identification at the end of the 1996-1997 season.. We are also planning a full scale parasitological study to understand the life cycle of *Serratospiculum* sp in Falconiformes in the Middle East. Your help and support is needed. If you think you could help please contact me directly for further information.

The International Fund for Avian Research

c/o The British Veterinary Association., 7 Mansfield Street, London W1M 0AT, United Kingdom

The International Fund for Avian Research (IFAR) is expanding its role so that in future it will be able to provide assistance to research projects concerning captive and free-living birds.

In addition to giving monetary grants, IFAR is proposing to offer the loan and/or donation of equipment and free professional or technical advise to help with certain projects. This will include, where feasible, advise in the field.

"This is an exciting new venture" says chairman, Professor J. E. Cooper FRCVS. *"It should prove of practical value to aviculturalists, field ornithologists and veterinarians"*.

Already incubator equipment has been offered by Gary Robbins, of AB Incubators, Stowmarket and IFAR is arranging for additional avicultural and scientific equipment to be provided by other companies and individuals who wish to further avian research on a worldwide basis.

A network of specialists is also being established. Those involved will be experts in their particular field who are willing to give advise on behalf of IFAR and may, in some cases, be able to travel in order to do so. Those interested in having their names added to the

network are invited to contact IFAR secretary, Brian Byles.

Any researchers, whether working on individual projects or part of a team, who would like to apply for equipment or specialist advise are welcome to contact the Fund. Application forms are available from The International Fund for Avian Research, The British Veterinary Association., 7 Mansfield Street, London W1M 0AT, United Kingdom. Full details of the use to which the equipment or advise will be put must be included.

For further information please contact:

Professor J. E. Cooper FRCVS
The Durrell Institute of Conservation
and Ecology
The University
Canterbury
CT2 7NX
United Kingdom

or

Mr Brian Byles
167 Pembroke Close
Banstead, Surrey,
SM7 2BH
United Kingdom
Tel/fax + 44- 1737-351245

"Learn wisdom from the experience of others, and from their failings you will be able to correct your own faults"

The Raptor Research Foundation 2nd International Conference on Raptors.

Urbino, Italy, 2 - 5 October 1996.

Report by Helen McDonald, Falcon Programme, National Avian Research Centre, Penllynin Falcon Facility, Penllynin Farm, College Road, Carmarthen, Dyfed, Wales, SA33 5EH, U.K.

Raptor biologists from all over the world converged on the University of Urbino last October for four days of papers, symposia and workshops. Subject areas covered during the conference included: Raptors and energy development; population, behavioural and trophic ecology; conservation and management techniques; the status and conservation of raptors; environmental contaminants; genetics and biochemical studies; trade and captive breeding; migration and dispersion, and Middle East and Asian raptors.

Films were also shown, including some extraordinary footage of a pair of American kestrels feeding an adoptive brood of starlings (Fran Hamerstrom) and a video report on NARC/FFIP lugger falcon fieldwork in Pakistan. Scenes of trapped luggers being transported in plastic sacks shocked delegates, who were relieved to learn that educational programmes for trappers are planned for 1997.

Delegates were treated to a series of events and excursions laid on by the conference organisers: receptions, buffets, visit to San Marino and a nature reserve, even a banquet. Moments of comedy resulted: during the San Marino trip, two delegates were heard arguing furiously whether the raptor high overhead was a honey buzzard or a short-toed Eagle!

A poster paper on the MEFRG was displayed throughout the conference, and MEFRG members made up a significant proportion of the delegates. Those presenting papers, contributing to papers or presenting poster papers included the following: (For reasons of space, only one paper is attributed to each delegate).

* Nick Fox (The NARC conservation programme on the saker falcon in Kazakhstan, Mongolia, Pakistan and the Middle East);

* Brigadier Mukhtar Ahmed (Poster: The research and conservation of the lugger falcon in Pakistan);

* Robert Kenward (Preliminary modelling of saker populations; implications for sustainability);

* David Bird (Effects of low-flying military aircraft on osprey reproductive performance);

* Herman Dottlinger (The black shaheen or the Indian peregrine falcon: a subspecies of *Falco peregrinus*?);

* Chris Eastham (Poster: The morphometrics of the saker falcon and allied species);

* Jon Wetton (Genetic tests of parentage, gender and geographic origin for diurnal raptors);

* Clayton White (Breeding biology and ecology of the orange-breasted falcon in Guatemala and Belize);

* Michael Wink (Detection of convergent traits in diurnal and nocturnal raptors through DNA sequence analysis).

MEFRG member Dr. David Bird acted as the scientific programme organiser with Keith Bildstein and Massimo Pandolfi.

Of particular interest to MEFRG members was a session entitled 'Workshop on assuring the sustainable use of saker falcons for the benefit of biological diversity and people' chaired by Timothy Geer of The World Wide Fund for Nature. Issues relating to the use of sakers in Arab falconry were discussed by, among others, Nick Fox, Robert Kenward, Brigadier Mukhtar Ahmed and Vladimir Galushin of the Russian Bird Conservation Union, who had previously given a paper outlining a possible strategy for the restoration of saker falcon populations in European Russia.

Proceedings of this important conference are currently under preparation. No publication date is yet available. For further details, and copies of the proceedings once they are available, contact Massimo Pandolfi, Istituto di Scienze Morfologiche, Università degli Studi di Urbino, Via M. Oddi, 61029 Urbino, Italy

Paper abstracts

Baumgart, W. & Hollands D. (1996). At nest site of stick-nest and tree-hollow breeding peregrines (*Falco peregrinus* Swainson 1838) in Australia. - Greifvögel und Falkneri 1994. Neumann - Neudamm. S. 108-114.

In south-eastern Australia, breeding peregrines frequently occupy old stick nests, particularly wedge-tailed eagles, and large tree-hollows, usually in dead trees. This habit has allowed them to establish themselves in open country where there are no cliffs. This includes grazing lands, river flats and cultivated areas, all of them rich in prey. The "forest-factor" which has an important (raising the hunting conditions) environmental feature for stick-nesting peregrines in north-east middle Europe, has no relevance here.

Large dead Red Gums are of limited occurrence in south-eastern Australia which puts a geographical limitation on their use by peregrines.

Some details of habits and population trends in Australian peregrines are also discussed. There is a comparison of their role with that of the grey falcon and discussion of convergent evolution with that species.

Baumgart, W. & Hollands D. (1994/95). The black and grey falcon (*Falco subniger* and *F. hypoleucus*) - two scarcely known Australian falcons. Del Falkner 44/45. 11 - 17.

Until recently, the black and grey falcons were considered as almost unknown species. As a result, the taxonomic evaluation of these falcons, as well as the brown falcon (*Falco berigora*) was problematic.

Lately, the knowledge about their biology has increased remarkably and it is now possible to characterise them functionally as medium-sized pursuit hunters, in the ground near space of open terrain, and in the free air space, as convergent evolution to the Hierofalcons and Peregrine. The brown falcon

can be evaluated as a functional substitute (confunctional equivalent) to some representatives of the Buteo-group. In this case, the functional position is in relation to its inherent performance and efficiency patterns, a relevant evaluation criterion for analogy and convergence.

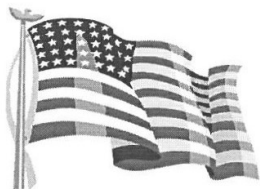
The phylogenetic origin and interspecific relationship of these falcons cannot be explained morphologically or ecologically alone. In this respect, the DNA-sequence analysis could be useful.

Dates for your diary

Association of Avian Veterinarians Annual Conference and Expo

9th - 13th September 1997
Reno, Nevada, USA

**Advancing and promoting avian medicine
and stewardship**



Call for papers:

Michelle Curtis-Velasco DVM,
Education Chair
2121 S. Oneida St.
Suite 325
Denver, Co. USA
80224-2552
Fax: +303-7598861

**The European Association of Avian Veterinarians
Fourth Conference**

18 - 23 May 1997
London, England



contact Conference Secretary:

Mr Alan K. Jones MRCVS
The Cottage, Turners Hill Road,
Worth, Crawley, West Sussex, RH10 4LY
England, United Kingdom.
Phone: +44-1293-884629
Fax: +44-1293-885507

For general enquiries or further information

**World Association of Wildlife Veterinarians (WAWV) 7th International
Theriological Congress**

6th - 12th September 1997
Acapulco, Mexico



WAWV will be sponsoring a symposium on "Veterinarians in Conservation Biology" at the 7th International Theriological Congress (7ITC) at Acapulco, Mexico. Dr A.W. English, Treasurer of WAWV, is acting as convener for this important gathering of wildlife people, together with a Mexican colleague who is acting as co-convener. The symposium will be a major component of the 7ITC Programme

aiming especially on highlighting the various roles of veterinarians in conservation biology.

For further information please contact:

Dr. A.W. English

University of Sydney, Department of Animal Health, Private Mailbag 3, Camden NSW 2579, Australia.

Fax No. + - 46 - 552931

Joint meeting of the World Association of Wildlife Veterinarians (WAWV) & American Association of Zoo Veterinarians (AAZV)

16th - 22nd October 1998
Holiday Convention Centre
Omaha, Nebraska, USA.

It promises to be an important conference of excellent scientific content.

World Association of Wildlife Veterinarians (WAWV) General Assembly

World Veterinary Congress
19th to 26th September 1999
Lyon, France

Readers of Falco can obtain up to date information about the above meetings of the WAWV by contacting:

Dr. Francis Scullion

Secretary WAWV
Department of the Marine Fish Health Unit
Teagasc, Malahide Road
Kinsealy, Dublin 17, Ireland
Phone: 00353-1-8460644
Fax: 00353-1-8460524

