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# Assessment of the Trade in Falcons and their Use in the State of Kuwait and Suggestions for Improving Compliance and Controls

This Thesis is submitted in Partial Fulfillment of the Requirements for the Master's Degree of Management, Access, and Conservation of Species in Trade; the International Framework.

In Addition, this Thesis is submitted in Partial Fulfillment of the Requirements for the Advanced Studies Diploma Degree

# Presented by

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#### Master's Course on Management, Access and Conservation of Species in Trade: the International Framework International University of Andalusia

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#### LIST OF ABBREVIATIONS

ACAnimals Committee (CITES) **CITES** Convention on International Trade in Endangered Species of Wild Fauna and Flora (1973) **COP** Conference of the Parties (to CITES) **EPA** Environment Public Authority, State of Kuwait GCC **Gulf Cooperation Council IUCN** World Conservation Union (formerly International Union for Conservation of Nature and Natural Resources) **KEPS Kuwait Environment Protection Society** Kuwait Institute for Scientific Research **KISR** NGO's Non-Governmental Organizations **PAAF** Public Authority for Agriculture Affairs and Fish Resources, State of Kuwait PIT Passive Induced Transponder UNEP United Nations Environment Programme

World Conservation Monitoring Center (now known as UNEP-WCMC)

WCMC

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#### **ABSTRACT**

A study was conducted during the period from July 2009 to July 2010 to assess the level of international trade in falcons and their use in the State of Kuwait and to ascertain if such trade and use are in compliance with obligations under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The study concluded with suggestions for improving compliance and for increasing levels of trade. Information used during the analyses of the trade came from research literature, the database of the CITES Management Authority in the State of Kuwait and CITES Trade Database. In addition, interviews were conducted with several officials and falconers and questionnaires were distributed to a sample of falconers and officials in charge of CITES implementation. The results show that the State of Kuwait is an important falcon trade center importing and exporting 2,303 falcons during the period from 2003 to 2008. The study has revealed that the four most imported falcons in descending order are Falco hybrid, F. peregrinus, F. rusticolus and F. cherrug, while the four most exported species are F. cherrug, Falco hybrid, F. peregrinus and F. rusticolus. The results also show that falconry is an important hobby with as many as 15% of the Kuwaiti population being active hobbyists. However, since hunting is prohibited in the State of Kuwait, many of the falconers practice their hobby in other countries as evidenced by the 431 falcon passports issued within three years.

The State of Kuwait has undertaken certain measures to ensure compliance with CITES and effect better controls related to the international trade in falcons. The establishment, in 2002 of the National Standing Committee for Regulating Trade in Endangered Species coupled with greater vigilance at entry points to control illegal trade in falcons are reflective of some of these measures. However, many problems still need to be resolved in order to ensure more effective controls and legal, sustainable and traceable international trade in falcons. Suggested solutions for overcoming such problems include simplifying procedures for obtaining CITES permits for trade in falcons and falcon passports, improving quarantine facilities, improving the technical skills of the personnel dealing with CITES regulations and raising the level of awareness among falcon traders. Also recommended is the use of advanced data storage and management system for better management of information on international trade in falcons.

The study has also shown that falconers in the State of Kuwait encounter certain problems which prevent them from practicing their hobby and business. To assist falconers with these problems, certain measures are recommended including: establishment of a union or organization for falconers, issuing falcon trade permits by the Ministry of Trade and Industry, establishing an official local falcon trade market, providing land for keeping, training and captive breeding of falcons, and establishing more advanced falcon hospitals and clinics.

#### I. INTRODUCTION

#### 1.1 General Introduction:

Falcons are birds of prey and are used in many parts of the world as game birds. They are divided into three main groups, Kestrels, Hobbies and Peregrines. According to White *et al.* (1994) there are 44 living species of falcons in the family Falconidae. Falcons (Falconiformes spp.) are listed in the CITES Appendices to ensure that international trade in specimens of such species does not threaten their survival. There is much demand for falcons and they are traded internationally in significant numbers (CITES Trade Database - UNEP-WCMC). Such a high demand for falcons has lead to illegal trade in falcons in violation of CITES Convention regulations (CITES, 2009a).

#### 1.2 Falcons and Falconry in the Arab Countries:

Falcons are culturally important birds in the Arab countries, especially in the Middle East. The Bedouins used and continue to use falcons to hunt game. For non-desert dwelling Bedouins hunting with falcons is no longer a necessity, but falconry remains an integral part of Arab lifestyle and tradition. The Arabian Peninsula countries in particular are perhaps the last places in the world where falconry remains as a widespread traditional sporting activity amongst the royals and the commoners.

The sport of falconry is very ancient and the historical records show that it goes back to more than fifty centuries and Arabs have practiced it from very early times and possibly as long ago as the Eighth Century BC (Remple and Gross, 2007). The Arabian Gulf States have one of the world's longest traditions of falconry. The practice of trapping passage falcons has existed for centuries and has proved to be sustainable. In recent years however, falcon populations have declined due to a variety of causes, including over trapping.

In countries where there are nomadic Bedouins, falcons form an excellent living tool for hunting and augmenting their meager diet. However, for the nobility and hobbyists hunting by falcons is a sport. Interest in falconry has recently increased amongst many young citizens of the Arab countries in the Arabian Gulf Region. Falcons are possessed not only for hunting, but also for breeding and as an item of trade.

#### 1.3 Falconry in the Holy Oura'n:

Further evidence for the importance of falconry in the Arabian Countries is that it is mentioned in the Holy Qura'n:

In the Name of Allah, the Compassionate, the Merciful

"They ask you as to what is allowed to them. Say: The good things are allowed to you, and what you have taught the beasts and birds of prey, training them to hunt-- you teach them of what Allah has taught you-- so eat of that which they catch for you and mention the name of Allah over it; and be careful of (your duty to) Allah; surely Allah is swift in reckoning."

Surat al-Ma'idah, Ayah 4 (Fig.1).

### 1.4 Traditional falconry skills:

Traditional falcon hunting involves three basic skills: trapping of the falcon, training of the falcon, and using the falcon in actual hunting (Remple and Gross, 2007). Each of these skills is important and complements the others. However, not all falconers practice all of these three skills. For example, a sports falconer might be skilled in using the bird for hunting, but he might not be skilled in capturing and training the birds. Likewise, trainers might not be good in capturing birds. It should be noted that nowadays an additional skill could be added, namely: captive breeding.



Figure 1. Islamic teachings and rituals are an integral part of the falconry by Muslims as stated in the Holy Qura'n.

#### 1.4.1 Trapping of the falcon:

The technique involves the use of a pigeon as live bait (pigeons are favored by falcons). Noose harnesses are attached to the pigeon's leg. Locally this is called "Mishbak Alhamama" (Fig. 2). In addition to the Mishbak, a net is also placed near the bait (stretched between two meter wooden sticks) which will capture the falcon as it flies towards the pigeon. The art of trapping requires a great deal of skill in order to ensure that the falcon is trapped and captured without harm. Only female falcons are sought, since they are the ones used in hunting.

#### 1.4.2. Training of the falcon:

The main objective of training a falcon is not to teach it how to catch a prey, but to teach it obedience and submission without having it lose courage and pride. When the captured falcon is handed to the trainer, its eyes are sealed by sewing its lower eye lids and pulling them upwards so that it cannot see. This is done to calm the falcon. After a few days the eye lids are slowly and gradually lowered in order to allow light to reach the eyes. The process of training is slow and is based on building trust between the bird and the trainer. There is reward (a piece of meat) for obedience and punishment (not offering food) for non-submission and disobedience. For building better rapport between the trainer and the bird, each bird is given a name to which it responds very well.

Prior to its training, the falcon is kept hungry for a few days. A decoy, usually a dead pigeon is used as a training tool. The falcon is encouraged to catch the pigeon which is tied to a rope, placed on the ground and moved in circles. The falcon is released and encouraged to catch the decoy.



Figure 2. The traditional trapping method for catching falcons using "Mishbak Alhamama"

The decoy is also moved in a circular motion in the air and the falcon is trained to catch it. These exercises are done in the open air where there is plenty of space for the falcon to fly and maneuver. Professional trainers are usually employed to train the falcons which are taken by car to the open field (Fig. 3).

#### 1.4.3. The use of falcons in capturing game species:

Wild falcons injure their captured prey immediately upon catching them. Trained falcons also carry a high risk of injuring their prey. Therefore, in order to reduce injury, trained falcons are fitted with claw and beak covers. The use of disarmed falcons is justified only where other capture methods are forbidden, or when recreational falconers can be persuaded to co-operate with researchers. Untrained and disarmed falcons should not be used for the capture of large and valuable birds such as the Houbara Bustard (*Chlamydotis undulata*) (Seddon *et al.*, 1999).

The technique of hunting with the falcon is rather simple. Traditionally, the falconer, places the hooded bird on his hand as he mounts a horse (often open cars are used). When the falconer sees a possible catch prey, he uncovers the hood and releases the falcon. The prey could be caught in mid-air or on the ground. Once captured, the prey is kept firmly to the ground and the falcon begins to feed on it (Fig. 4). The falconer rushes in and kills the prey in accordance with Islamic teachings (beheading with a sharp knife and reciting holy verses).

#### 1.4.4. Captive breeding of falcons:

Captive breeding of falcons is a modern skill associated with falconry. There are several centers in the Arab countries including the State of Kuwait in which captive breeding is practiced. However most of these centers are not officially registered and recognized as CITES breeding centers.



Figure 3. Professional falcon trainers in Kuwait are preparing to transport the falcons by car to the training field.



Figure 4. A falcon holding on to its catch of Houbara Bustard.

#### 1.5 History and importance of falcons and falconry in the State of Kuwait:

Falcons are important game birds in the State of Kuwait, in the past and at present times. The Amir of Kuwait, His Highness Shaikh Sabah Al-Ahmad Al-Sabah, is a devoted falconer and is a source of inspiration to young falconers (Fig. 5).

There are 10 falcon species reported from the State of Kuwait all belonging to the genus *Falco* (Table I and Fig. 6). The traditional hunting practice with falcons is called "QANAS". For the State of Kuwait, falcon trade is very important since every year thousands of birds are exported and imported.

# 1.6. The State of Kuwait and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES):

The State of Kuwait is the 158th Party to CITES and it ratified the Convention on 12 of August 2002. The Environment Public Authority (EPA) was designated as the Management Authority, and issued CITES permits up to 1 July 2003. A second Management Authority, the Public Authority for Agriculture Affairs and Fish Resources (PAAF) was assigned responsibility for issuing CITES permits on 1 July 2007, based on a Memorandum of Understanding between EPA and PAAF.

With regard to implementation at the national level by the State of Kuwait, the National Standing Committee for Regulating Trade in Endangered Species was established in 2002. Membership in this Committee include representatives from the EPA (Chair), PAAF, Directorate General of Civil Aviation, Ministry of Commerce and Industry, Ministry of the Interior, Kuwait Municipality, General Administration of Customs, Kuwait Airways Corporation, KISR, KEPS (as NGO) and Volunteer Working Center (as NGO). The Committee meets at least twice every month.



Figure 5. His Highness Shaikh Sabah Al-Ahmed Al-Sabah, the Amir of Kuwait holding a rare white falcon.

Table I. Falcons recorded in the State of Kuwait (Alsirhan, 2007).

	Scientific Name	Common Name	Status				
1	Falco naumanni	Lesser Kestrel	Common passage migrant, rare winter visitor				
2	Falco tinnunculus	Common Kestrel	Uncommon passage migrant, Uncommon winter visitor, Uncommon resident bird.				
3	Falco vespertinus	Red Footed Falcon	Vagrant				
4	Falco clumbarius Marlin Falcon Rare passage migrant, rare wir visitor						
5	Falco subbuteo	Eurasian Hobby	Uncommon passage migrant				
6	Falco concolor	Sooty Falcon	Rare disperser in spring, summer and autumn				
7	Falco biarmicus	Lanner Falcon	Rare disperser, autumn and winter				
8	Falco cherrug Saker Falcon Rare passage migrant and wi visitor						
9	Falco peregrines	Peregrine Falcon	Scarce disperser in all seasons, rare visitor				
10	Falco pelegrinoides	des Barbary Falcon Vagrant					



Figure 6. Falcon species reported from the State of Kuwait (different sources).

The duties of the Committee are supervision of the implementation of CITES at the national level, coordination between the various national authorities concerned with trade of endangered species, evaluation of the trade activities of endangered species and suggestion of actions to be taken for regulating trade in endangered species in accordance to CITES requirements. In addition to performing these duties, the Committee was designated to act as the CITES Scientific Authority starting from July 2004 (CITES, 2005).

To ensure the effective implementation of CITES by the State of Kuwait, EPA and other concerned authorities have enacted several resolutions and laws. Pursuant to Resolution Conf. 8.4 (Rev. CoP15) regarding National laws for implementation of the Convention, EPA issued Resolution No. 93/2003 Regarding regulation of Sale and Trade in Endangered Species of Wild Fauna and Flora. This legislation came into force on the 9 June 2003. Furthermore, the State of Kuwait is a very active Party in CITES and participates in all meetings of the Conference of the Parties and Standing Committee, and other technical workshops. Notably, several workshops related to CITES were organized by the State of Kuwait and held in Kuwait with regional and international participants (CITES, 2006 and 2007).

The present study evaluates the implementation of CITES requirements with regard to international trade in falcons by the State of Kuwait. The use of falcons as sports birds is also examined. Suggestions are given for improvement of the use, protection, propagation and trade of these important birds of prey.

### II. OBJECTIVES

The main objectives of this study were:

- To assess and discuss the effectiveness of the legal, administrative and institutional arrangements enacted by the State of Kuwait for the control of international trade in falcons in compliance with CITES requirements.
- To analyze data of export and import trade in falcons from 2003 to 2008 with a focus on the extent of the trade, its overall trends and the countries involved in such trade.
- To propose suggestions for the improvement of falconry and CITES controls on the trade in falcons by the State of Kuwait Authorities.

#### III. MATERIALS AND METHODS

This study was conducted using many different sources of information and data. A thorough search of the literature was conducted to review the available and historic information on the use of falcons and on level of their trade in the State of Kuwait. Additionally, interviews were conducted with CITES implementation officials, falconers and falcon traders with a view to obtain additional information and data. The available databases at the Kuwait CITES Management Authority (PAAF) and the CITES Trade Database (UNEP-WCMC), which is administered by UNEP-World Conservation Monitoring Centre, were used to obtain data related to the international trade in falcons. Two questionnaires were prepared for gathering information from falconers, falcon traders, falcon breeders and the officials responsible for the implementation of CITES in the State of Kuwait. The data of these questionnaires were likewise analyzed.

#### 3.1- Historical background:

Numerous works on falcons such as that by Parry-Jones, 2005; Richards, 2006 and Remple and Gross, 2007 were searched for information on falcons and on the history of falconry in the Arab countries. Also relevant documents in Arabic were examined for additional information. The World Wide Web was a good source of useful information. Finally, interviews with Kuwaiti falconers and bird specialists offered more supporting data and information.

#### 3.2- Analyses of falcon passports database (PAAF):

The passport data were obtained for the years 2006 to 2009 from the Statistics Department of the Management Information Center of PAAF (see Appendix I). The data were analyzed using Microsoft Office Excel 2007<sup>®</sup> in order to prepare graphs and to identify trends in falcon trade over time. More information on falcon passport system is provided below.

#### 3.3- Analyses of the Kuwait import and export falcon trade data:

Data on international trade of falcons to and from Kuwait were obtained from the CITES Trade Database which is hosted at the UNEP-World Conservation Monitoring Center. The data used were from 2003 to 2008 (see Appendices II and III). The CITES Guide to interpreting outputs from the CITES Trade Database was used (CITES, 2004a).

#### 3.4- Ouestionnaires and Interviews:

Two questionnaires in different formats were prepared. One format was designated to gather information from officials and personnel in charge of the international trade in the implementation of CITES (Appendix IV). The other format was designated to obtain information from falconers, falcon traders, trainers and breeders (Appendix V). A total of 49 questionnaires were distributed to ascertain the level of awareness about CITES and the level of trade in falcons and to identify existing problems with the current procedures and regulations concerning the trade of falcons in order to suggest possible solutions and improvements.

Interviews were conducted with several persons each with a special expertise. Miss. Shereefa Al-Salem Senior Researcher at Kuwait EPA and the Convener of the National Committee for CITES gave valuable information on implementation of CITES. Mr. Khalid Al-Nasrallah, bird photographer and documentary environmental film producer and Head of the Protected Areas Group at the Volunteer Work Center offered valuable information on falcons and falconry in the State of Kuwait. Mr. Bader Al-Moharib a falcon breeder, trainer and trader gave valuable information about problems faced by hobbyists and falcon traders. Finally, Mr. Abdullah Nashi Al-Rasheedi a falcon hobbyist provided in-depth information about falcon species preferred by falconers in the State of Kuwait and elaborated on obstacles faced by them. Furthermore visits were made to the Kuwait Falcon Hospital in Al-Sulaibikhat Area and the quarantine facility at the Kuwait Airport.

#### IV. RESULTS

# 4.1- Kuwait's efforts to comply with and implement CITES regulations related to international trade in falcons:

The State of Kuwait has undertaken several administrative and legal procedures in order to fulfill its obligations with regard to implementation of CITES. The main processes are presented in the following sections:

#### 4.1.1. Administrative Procedures:

According to the Biannual Report of the State of Kuwait for the years 2007-2008, submitted to the CITES Secretariat on October, 2009, a total of 61 personnel are responsible for implementation of CITES-related matters (CITES, 2009b). Of those, 15 are with the EPA and 46 are with the PAAF. The PAAF personnel work in three sections the Animal Wealth Section, the Plant Wealth Section and the Fisheries Section. However, only those personnel who are working in the Animal Wealth Section are in charge of implementing CITES regulations with regard to the trade in falcons. Three Departments of the Animal Wealth Section collaborate in the control of the trade in falcons. These are the Kuwait Zoo, the Quarantine Department and the Animal Health Department.

The CITES permits for falcons as well as the falcon passports are issued by the Kuwait Zoo, while import and export permits are issued by the Animal Health Department. The Quarantine Department is in charge of receiving falcon shipments at the Airport and other customs points. The number of personnel at the Kuwait Zoo in charge of issuing falcon permits is not more than four employees at any time. These employees are also in charge of issuing CITES permits for all other fauna species. The personnel at the Animal Health Department dealing with CITES matters number only two. Also, only two personnel at the Quarantine Department are in charge with handling falcons.

#### 4.1.2. Legislative Procedures:

PAAF stopped issuing CITES export permits for *Falco cherrug* in May 2005 in accordance to the decision of the Animals Committee (AC) taken at the Review of the Significant Trade in Specimens of Appendix II Species Meeting held in Johannesburg, South Africa 29, March to 2 April 2004 (CITES, 2004b). Also EPA in 2005, has prohibited capture of all native birds including falcons. Since then, no significant legislation concerning the capture of and trade in falcons has been issued by the State of Kuwait.

#### 4.1.3. Issuing CITES permits for Import and Export of falcons:

All Species of the Family Falconidae (falcons) are listed in the CITES Appendices I or II. This means that all falcons need CITES documentation, an import permit, export permit or both permits (if listed in Appendix I), to enter or leave the State of Kuwait. For example, *Falco cherrug* (Saker falcon) is listed in CITES Appendix II while *F. peregrinus* (Peregrine falcon) and *F. rusticolus* (Gyr falcon) are listed in CITES Appendix I. The hybrid falcons also require CITES documentation.

The EPA was designated by the State of Kuwait as the CITES Management Authority and issued CITES permits up to 1 July 2003. A second Management Authority, PAAF was designated as the authority responsible for issuing CITES permits, based on the Memorandum of Understanding signed between EPA and PAAF. The second Management Authority began operating on 1 July 2004.

At the present time, the procedure for obtaining a CITES permit is very complicated. The owner of the falcon must first complete an application necessary for obtaining a CITES permit. This procedure is done at the main offices of PAAF. Once this procedure is completed, the owner must go to the Kuwait Zoo, which is located in a different area of the city to obtain the required CITES permits. At this point, the owner may be asked to bring his

falcons to the Zoo to check if they have any markings e.g. a microchip or leg rings. The owner should also present all required documents needed such as CITES permits, personal information, which should also include the complete addresses of the exporter and the importer. After the CITES personnel at the Kuwait Zoo, ensure that all the data and information are provided and correct, the CITES permit is issued. The applicant must then go to the Animal Health Department, which is located in a different area of the city and present the CITES permit given to him at the Kuwait Zoo to get final approval for the export or import of the falcons (Fig. 7).

#### 4.1.4. The Falcon Passport:

Some species of falcons are becoming increasingly rare in the wild and, therefore, illegal and unregulated trade in those species has increased and has become more profitable. Smugglers and other criminals more often target the most commonly used birds in falconry, the Saker Falcon *Falco cherrug* (CITES Appendix II listed species), Gyr Falcon *Falco rusticolus* and Peregrine Falcon *Falco peregrinus* (both CITES Appendix I listed species). These birds are also some of the most targeted falcon species for the black-market trade. The secretive and elusive nature of this illegal trade in falcons makes it very difficult for the authorities to quantify accurately the total number of birds smuggled or traded in the black market.

With a view to reducing significantly illegal trade in falcons and to ensure more effective compliance with CITES requirements, a falcon passport system was implemented in the State of Kuwait. In November 2006 PAAF started a new registration system in accordance with Decision 1129/2006 (PAAF, 2006) which regulates the issuing falcon passports (certificate of ownership for frequent cross border crossings) for all the falcons acquired for personal use, i.e. falconry.

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2.5	Director of Kuwait Zoo										
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	State of Kuwait 00/00/2008 KW-PAAF-EX 0000										
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Bloo	ek Oua	ntity	Ī								
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Figure 7. Sample of CITES permits issued by Kuwait Zoo (PAAF).

The Kuwait CITES Management Authorities (PAAF) is responsible for registering the falcons and issuing the passports. In order to qualify for a passport, all birds must be registered in the State of Kuwait. The birds must be legally obtained or imported into the State of Kuwait and accompanied by all necessary permits, especially CITES documents. Once registration is completed, a falcon passport is issued for the sole purpose of cross border movement (Fig. 8). Falcon registration forms are available at the Kuwait Zoo.

A completed registration form must include the contact details of the owner, sex and breed of the bird, the country of origin, whether it is wild or captive bred in addition to its listing status in the CITES Appendices (Fig. 9). The falcon owner must present the live bird which should be implanted with a universal microchip from a certified veterinary clinic. A fee of 10 Kuwaiti Dinars (approximately US\$ 35) is charged for issuing and for renewing the passport.

On completion of the registration process, the passport is issued with the relevant information about the bird in addition to registration and expiry dates, the place of registration and the CITES Appendix listing of the bird. An official ring and a Passive Induced Transponder (PIT), to identify positively the specimen, are also issued for each bird. The passport is valid for three years, and can be renewed for a further three years. Each bird will have a file containing the relevant information. The files are presently kept at the Kuwait Zoo.

Currently, the falcon passport is accepted only by a limited number of countries. It is up to each country (whether a CITES Party or non-Party) to decide if it will accept the falcon passport or require the standard CITES permits only. It is hoped that more countries will accept this system in time. The passport as a document is more durable and much easier to be carried and presented at the border than the CITES certificates. Also the passport can be renewed for additional validity period. Additionally, the passport presents a good record of the falcon's border crossings.

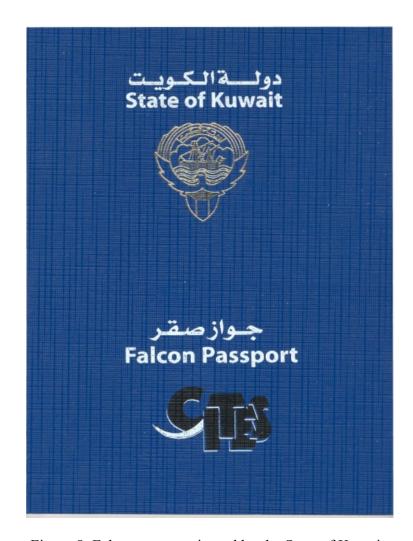


Figure 8. Falcon passport issued by the State of Kuwait.





Figure 9. The Falcon Passport information pages.

#### 4.1.5. The Quarantine:

Quarantine facilities, established and operated by PAAF, are available at all major ports and border points in the State of Kuwait. The main quarantine facility for keeping imported falcons, the "Airport Agricultural and Veterinary Quarantine" is located at the Cargo Section of Kuwait Airport. The building is small and has only three small air-conditioned rooms for keeping imported birds of different species, including falcons (Fig. 10). The facility is run by eleven personnel working in shifts. During each shift, there is one attending veterinary doctor.

Upon the arrival of falcons to the Airport, they are inspected by Customs personnel who examine the accompanying shipment documents. The falcons are then transferred to the quarantine facility. At the quarantine facility, each falcon is examined by a veterinarian and laboratory analyses are performed. The main purpose of the examination is to determine if the bird is infected with a contagious disease, especially Avian influenza. Birds which are not fit for entry into the country are euthanized. There is no charge for keeping the falcons at the quarantine. The medical examination and laboratory analyses are also performed free of charge. However, feeding the birds remains the responsibility of the falcon owner.

#### 4.1.6. The Kuwait Falcon Hospital:

The Kuwait Falcon Hospital, located at the Al-Sulaibikhat Area (Fig. 11), is the only specialized center in the State of Kuwait for providing health care to falcons and other birds. The Hospital was opened in 2006 and it is a PAAF facility which is operated by the private sector. It has modern bird health care facilities and equipment, including an operating room, X-ray machine, treatment rooms, a laboratory and a bird keeping area. The staff is composed of 12 specialists with long experience in caring for falcons. They have vast experience in this area since most of them have worked in similar facilities in other Gulf countries. The hospital charges moderate fees for its services.



Figure 10. The Agricultural and Veterinary quarantine facility at the Kuwait International Airport.





Figure 11. The Kuwait Falcon Hospital.

#### 4.2- Falcon Trade in the State of Kuwait:

The State of Kuwait is an important falcon trade center due to the fact that many persons buy falcons for hunting or for resell. The country is quite famous for trade of rare and expensive wild falcons. The Kuwaiti falconers trade falcons with as many as 36 countries including the major falcon exporting countries such as United Kingdom of Great Britain and Northern Ireland, Islamic Republic of Iran, Mongolia, Islamic Republic of Pakistan and the Netherlands.

#### 4.2.1- Review and Analyses of the Falcon Passport Database:

Analyses of the falcon passport database show that a total of 431 falcon passports were issued during the period 2006 and 2009 (see Appendix I). The highest number of passports issued, a total of 262, was in the year 2006. This was due to the registering of falcons which did not have CITES permits in order to encourage owners to register their birds. The number of passports issued reduced dramatically reaching the lowest number of 23 in 2008 (Fig. 12). This is due to improved registration procedures and more stringent requirements, especially presentation of the CITES permits for each bird. Majority of the falcons for which passports were issued (292 = 67.74%) were listed in CITES Appendix II, while 139 falcons comprising 32.25% were listed in Appendix I. (Fig. 13).

The passport data for all years further indicate that the falcons listed in Appendix I for which passports were issued, numbered 139 birds of which 52 (37.4%) were wild birds and 87 (62.5%) were captive bred birds. For falcons listed in Appendix II the situation is reversed with 277 birds taken from the wild ( $\approx$  95%) and 15 only were captive bred birds ( $\approx$  5%). Figure 14 shows the number of wild and captive bred birds for which passports were issued during 2006-2009.

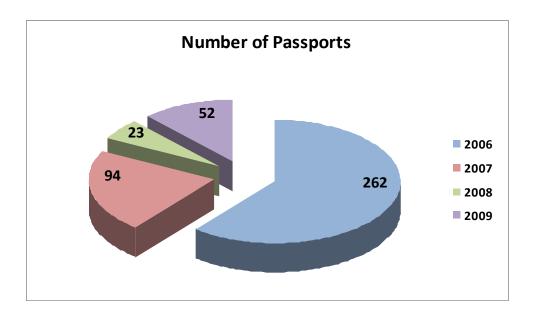


Figure 12. Number of falcon passports issued during each year from 2006 to 2009.

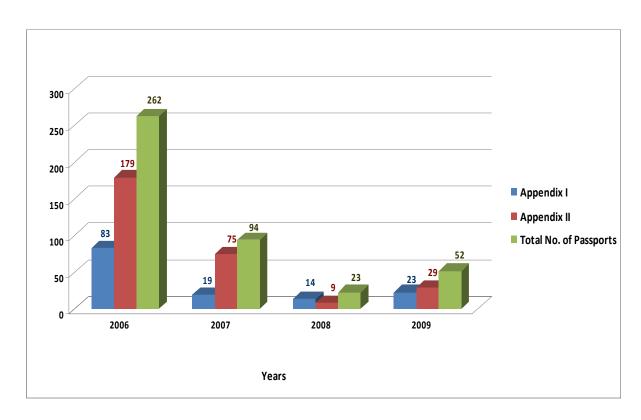


Figure 13. The number of falcons listed in CITES Appendices I and II for which passports were issued from 2006 to 2009.

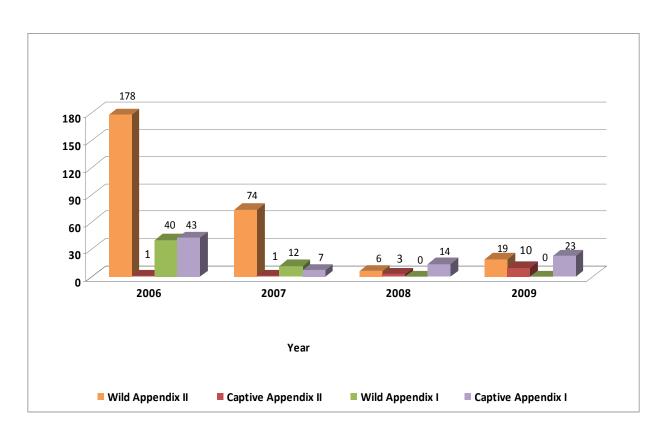


Figure 14. Number of wild and captive falcons listed in CITES Appendices for which passports were issued from 2006 to 2009.

Falcon passport data show that the falcons for which passports were issued have originated from 26 different countries. However the majority of falcons, 361 of 431 falcons (slightly more than 83%), came from six different countries (Table II). The State of Kuwait is at the top of the list with 141 falcons (32.71% of total), the United Kingdom is second with 80 falcons (18.56% of total) and the Islamic Republic of Iran is third with 79 falcons (18.32% of total). Other countries of origin with considerable export numbers are Mongolia 31 (7.19%), Islamic Republic of Pakistan 15 (3.48%) and the Netherlands 15 (3.48%).

# 4.2.2- Review and Analyses of the CITES Trade Database:

Analyses of the Kuwait falcon trade data during the period 2003-2008 retrieved from the CITES Trade Database indicates that the State of Kuwait trades in species of falcons with 36 countries. It exports to 12 countries only and imports from 12 countries while it both exports and imports with 12 countries (Table III). The data also show that the trade involves live birds with the exception of one case when three skins where imported and a single case when one specimen was exported.

Analyses of the CITES trade data regarding exports of falcons by the State of Kuwait during the years from 2003 to 2008 for which data are available (Table IV) show that a total of 1,197 falcons were exported by the State of Kuwait in 143 cases. The data also reveal that personal use (P) was the primary reason for exporting falcons by the State of Kuwait (80% of total falcons exported). Trade (T) was the second reason (20%) for such trade while scientific research (S) was the third reason with only one falcon. The highest number of falcons which were exported for personal use were taken from the wild (W) (71 cases of export, 813 falcons). This number was followed by falcons bred in captivity (C) (25 cases, 67 falcons), CITES Appendix I, falcons bred in captivity for commercial purposes (D) (9 cases, 33 falcons), falcons of unknown source (U) (2 cases, 27 birds) and falcons bred in captivity (F1) or subsequent generations (F) (7 cases, 16 falcons).

Table II. Origins of falcons for which the highest number of passports were issued by the State of Kuwait (2006-2009).

Country of Origin	Number of falcons	Total number of passports issued for all falcons	Percentage of total (%)
State of Kuwait	141	431	32.7
United Kingdom	80	431	18.5
Islamic Republic of Iran	79	431	18.3
Mongolia	31	431	7.1
Pakistan	15	431	3.4
Netherlands	15	431	3.4
Total	361	431	≈ <b>83.0</b> %

Table III. Countries with which the State of Kuwait trades in falcons (2003-2008).

	Countries to which falcons are exported	Countries from which falcons are imported Countries of both export and import		
Ī	Azerbaijan, Pakistan,	Canada, Czech Republic,	Austria, Chad, Iran,	
	Morocco, Saudi Arabia,	Morocco, Saudi Arabia, Denmark, Germany, Bahrain, Jordan		Total countries
	Libya, Mauritania,	Kenya, Mongolia,	Tunisia, Qatar, Syria,	
	Algeria, Egypt ,Iraq,	Netherlands, Netherlands	erlands, Netherlands United Arab Emirates,	
	Lebanon, Mali,	Antilles, Oman,	United Kingdom, United	
	Turkmenistan	Switzerland, Unknown	States of America	
	12 12		12	36

Table IV. Purpose of trade, source of specimens and number of falcons exported by the State of Kuwait (2003-2008).

Purpose of trade	Source of specimens	Number of export cases	Total No. of falcons
Personal (P)	Specimens taken from the wild ( <b>W</b> )	71	813
Personal (P)	Animals bred in captivity (C)	25	67
Personal ( <b>P</b> )	Appendix-I animals bred in captivity for commercial purposes ( <b>D</b> )	9	33
Personal (P)	Source unknown (must be justified) (U)	2	27
Personal (P)	Animals bred in captivity, (F1 or subsequent generations) (F)	7	16
Commercial / Trade (T)	Animals bred in captivity (C)	13	131
Commercial / Trade (T)	Appendix-I animals bred in captivity for commercial purposes ( <b>D</b> )	9	57
Commercial / Trade (T)	Specimens taken from the wild ( <b>W</b> )	5	50
Commercial / Trade (T)	Animals bred in captivity, (F1 or subsequent generations) (F)	1	2
Scientific (S) Specimens taken from the wild (W		1	1
Totals	5	143	1, 197

Analyses of the import data for the years 2003-2008, as reported by the State of Kuwait (Table V) show that a total of 1,106 falcons were imported by the State of Kuwait in 122 trade cases. The main reason for imports was trade (699 falcons, 63% of the total). The second reason was personal use (349 falcons, 32 % of the total). The other two reasons for import of falcons was for breeding in captivity (55 falcons, 5% of total) and for educational purposes (3 falcons, > 1%).

Traded falcons come from five sources. The majority of imported falcons were bred in captivity (C) (668 falcons, 60%). The second source of imported falcons was Appendix I listed falcons bred in captivity for commercial purposes (D) (278 falcons, 25%). The third source was falcons bred in captivity F1 or subsequent generations (F) (122 falcons, 11%). The last two sources are falcons taken from the wild (W) (32 falcons, 3%) and unknown sources (U) (6 falcons, 1%).

Analysis of the data from the CITES Trade Database indicates that there are gaps in the data. The numbers reported by the exporting countries do not match those reported by the importing countries and vice versa. The data shows that the differences are significant. For example in the case of the exports, Kuwait reports 1,197 falcons exported during 2003-2008, while the countries for which these falcons were designated reported only importing 184 falcons from Kuwait. Likewise, the State of Kuwait reported that 1,106 birds were imported during 2003-2008, while other countries reported that they exported to the State of Kuwait during the same period 1,614 falcons.

Table V. Purpose of trade, source of specimens and number of falcons imported by the State of Kuwait (2003-2008)

Purpose of trade	Source of specimens	Number of Import cases	Total No. of falcons
Personal (P)	Animals bred in captivity (C)	44	231
Personal ( <b>P</b> )	Animals bred in captivity (F1 or subsequent generations) (F)	14	52
Personal ( <b>P</b> )	Specimens taken from the wild $(\mathbf{W})$	7	32
Personal ( <b>P</b> )	Appendix-I animals bred in captivity for commercial purposes ( <b>D</b> )	6	31
Personal ( <b>P</b> )	Source unknown (must be justified) (U)	2	3
Commercial / Trade (T)	l / Trade (T) Animals bred in captivity (C)		437
Commercial / Trade (T)	Appendix-I animals bred in captivity for commercial purposes ( <b>D</b> )	12	247
Commercial / Trade (T)  Animals bred in captivity (F1 or subsequent generations) (F)		3	15
Breeding in captivity (B)	Animals bred in captivity (F1 or subsequent generations) (F)	5	55
Educational (E)	Source unknown (must be justified) (U)	1	3
Totals	Totals 5		1,106

During the six-year period from 2003 to 2008 a total of 2,303 falcons of different species were traded by the State of Kuwait. Of these, 1,106 were imported while 1,197 were exported. A total of seven species in addition to hybrids of the Genus *Falco* were traded internationally (Table VI). Hybrid species represented the largest numbers of falcons traded (903 imported and 243 exported) followed by *F. cherrug* (19 imported and 869 exported). Other species such as *F. peregrinus* and *F. rusticolus* were traded in moderate numbers (129 and 121). The other four species *F. biarmicus*, *F. peregrinus pealei*, *F. pelegrinoides* and *F. tinnunculus* were traded in very low numbers.

Import and export data on the species of falcons most traded by the State of Kuwait are presented in pie charts (Figs. 15 and 16). The charts show that hybrid falcons constitute 81% of the imported falcons, while *F. cherrug* was the most common exported species comprising 73% of the total exports. The charts also show that *F. peregrinus* and *F. rusticolus* represent higher percentages of the imported falcons than the exported falcons.

## 4.2.3 Review and Analyses of the results of the Questionnaires:

# 4.2.3.1 Questionnaire completed by officials responsible for the implementation of CITES:

A total of 21 respondents returned a completed questionnaire. Each questionnaire consisted of 20 questions. Some of these questions had follow-up questions requesting more specific information. Sixteen of the 20 questions required a "Yes" or "No" or "Do not know" answers. The answers to these 16 questions were analyzed and the percentages of the answers were calculated.

Table VI. Number and species of falcons traded by the State of Kuwait during six years (2003-2008).

Falcon species	Numbers Imported	Numbers Exported	Total falcons traded
Falco hybrid	903	243	1,146
Falco cherrug	19	869	888
Falco peregrines	96	33	129
Falco rusticolus	83	38	121
Falco biarmicus	0	13	13
Falco peregrinus pealei	4	0	4
Falco pelegrinoides	1	0	1
Falco tinnunculus	0	1	1
Totals	1,106	1,197	2,303

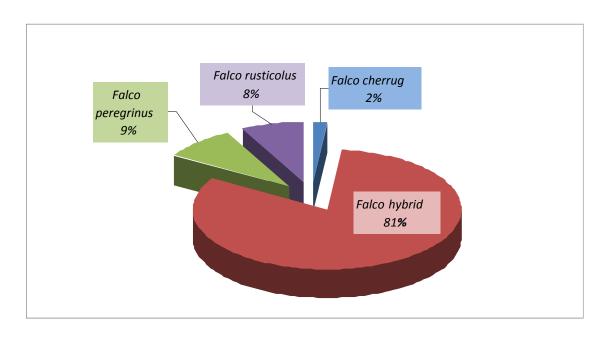


Figure 15. Percentages of the four main falcon species imported by the State of Kuwait from 2003 to 2008.

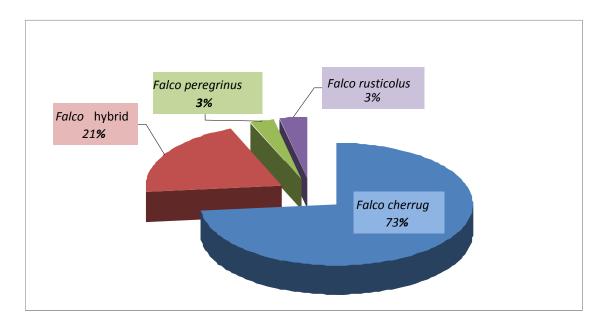


Figure 16. Percentages of the four main falcon species exported by the State of Kuwait from 2003 to 2008.

The results show that a high percentage of the respondents gave a "Do not know" answer (the range for the 16 questions was 19-67%). Responses also included a high percentage of "Yes" answers but with incorrect or missing information. Furthermore those who said "No" for some questions were not able to respond accurately to the follow up questions. Those respondents were wrong in 21-100% of their answers. Overall, nearly one third (44 answers out of 129 = 34.10%) of those who answered the questioned gave the wrong information. Also in eight out of the sixteen questions answered with "No", the respondents failed to give the correct answers to the follow up questions since the information provided in their answers were totally wrong.

The following is a summary account of the answers given to each question. It should be noted that some questions had follow up questions (see the questionnaire in Appendix IV):

Q1: Do you know the Authority responsible for the implementation of CITES in the State of Kuwait?

The majority (19 respondents = 90.4%) answered yes, but only 15 of those (78.9%) knew the correct name of the Authority.

Q2: Are there national laws for the regulation of the trade in falcons in the State of Kuwait?

Nearly one half (10 respondents = 47.6%) said yes, but only four respondents out of ten (40%) gave the correct name of the law.

Q3: Are there any coordination efforts on the national level for the control of the trade in falcons?

Less than half of the sample (9 respondents = 42.8%) answered affirmatively, and only six of these respondents (66.6%) gave the correct names of the coordination efforts

and programs. Also, seven respondents (33.3%) said that there are no such coordination efforts. This group was wrong since coordination efforts exist.

Q4: Are there any coordination efforts on the regional level to control the trade of falcons?

Slightly more than one third (8 respondents = 38%) of the sample said yes there are such efforts, but only three (37.5%) of them gave the correct names of the regional coordination programs. In contrast four respondents (19%) said there are no regional coordination efforts although coordination efforts exist.

Q5: Do you believe regulations currently in force related to the ownership and trade in falcons should be replaced with more stringent regulations?

Nearly one half (10 respondents = 47.6 %) of the sample believed that current regulations should be replaced with more stringent regulations. However, five respondents (23.8% of the sample) stated that current regulations are sufficient. Six respondents (28.5% of the sample) stated that they did not know if the regulations were sufficient or not.

Q6: Do you know if there are any on-going studies concerning the current situation of the trade and capture of falcons in the State of Kuwait?

Only four respondents (19% of the sample) answered "Yes". Furthermore they failed to give the correct names of the studies or the names of the agencies which are conducting such studies. In contrast eight respondents (28% of the sample) said there are no such studies. They gave the following reasons for why the studies are not being conducted:

- Lack of experienced and qualified personnel for conducting such studies.
- Limitations in human resources working in this field.
- Inadequate funding for conducting such studies and lack of a national fund for supporting falcon studies.
- Lack of cooperation among concerned authorities and institutions.
- Lack of cooperation by falconers based on keeping such information confidential.

- Lack of confidence and trust in Government Agencies in-charge of falcon information and regulations.
- Lack of interest by Government Authorities and research institutions for conducting such studies.

# Q7: Are there specialized hospitals or clinics in the State of Kuwait for treating falcons?

A large percentage of the sample (15 respondents = 71.4%) stated that there is a specialized hospital or clinic in the State of Kuwait for treating falcons. However, only about half of them knew that only one such center existed. Only one respondent (4.7% of the sample) gave an incorrect answer, while five persons (23.8%) stated that they did know if such a facility existed.

# Q8: Are there falcon breeding centers in Kuwait?

Only one respondent (4.7%) said there is such a facility and the answer was incorrect. Less than one half (9 respondents = 42.8% of the sample) stated there is no such facility, which is the correct answer. Noticeably, more than half of the sample (11 respondents = 52.3%) said they did not know of the existence of such a facility.

Q9: Are there any problems in implementing CITES regarding the trade in falcons in the State of Kuwait?

The majority of those questioned (13 respondents = 61.9%) said that there are problems in the implementation of CITES in the State of Kuwait. They listed the following problems in descending order:

- 1- Technical
- 2- Legislative
- 3- Administrative
- 4- Political
- 5- Other problems such as: Enforcement of CITES at certain points of export and import; Lack of enforcement of the laws.

#### Q10: Do you know how many falcon traders there are in the State of Kuwait?

All respondents to the questionnaire (21 officials = 100%) could not answer the question.

Q11: Is hunting by falcons considered legal in the State of Kuwait?

Nine respondents (42.8% of the sample) gave the correct answer, namely that that hunting by falcons is legal, and they were right. Eight respondents (38%) gave the wrong answer by stating that hunting by falcons was illegal. Only four respondents (19% of the sample) did not know the answer.

Q12: Is the local falcon trade in the State of Kuwait effectively controlled by the concerned authority?

Seven respondents (33.3%) gave the right answer, but only two (28.5%) of them were able to give the correct name of the authority concerned. Six respondents (28.5%) stated incorrectly that the falcon trade was not controlled by any authority. The others (eight respondents = 38% of the sample) did not know whether or not there was control of the trade in falcons.

Q13: Is the National Management Plan for registration and census of falcons trade in the State of Kuwait effective?

Six respondents (28.5% of the sample) stated that the national management plan was effective. Of these four officials (66.6%) stated that the plan was moderately effective, while two respondents (33.3%) stated that the plan's effectiveness was low. On the other hand, seven respondents (33.3% of the sample) stated that the plan was ineffective while, a considerable number of the sample (eight respondents = 38%) said they did not know if such a plan existed.

Q14: Is there a separate annual budget allocated for implementation of CITES in the State of Kuwait?

One third of the sample (7 respondents = 33.3% of the sample) stated correctly that

there did not exist a separate annual budget for implementation of CITES. But the majority of respondents (16 = 66.6%) stated that they did not know.

Q15: Is there an independent department for implementation of CITES in the State of Kuwait at the Public Authority for Agriculture Affairs and Fish Resources (PAAF) and its equivalent in other government agencies?

Only one third of the sample (seven respondents = 33.3%) stated correctly that there was no separate department for CITES at PAAF and/or EPA. The rest of the sample (17 respondents) were divided equally between those who gave the wrong answer by saying "Yes" (seven respondents) and those who said they did not know (seven respondents).

Q16: How many personnel are dedicated by PAAF and other implementing authorities for the implementation of CITES?

All respondents (21 = 100%) answered this question incorrectly.

Q17: In your opinion, what problems are encountered by the personnel responsible for the implementation of CITES?

The answers included:

- Budget limitation.
- Manpower limitation.
- Most staff are not fully dedicated to CITES work since they perform other duties.
- Staff are faced with administrative pressure, wrong decision making by superiors, political interference from within and outside of the Authority.
- Lack of awareness by falcon traders on matters related to CITES regulations.
- Lack of environmental awareness on the public level
- Lack of cooperation between agencies and falcon traders
- Forgery by traders
- Existence of a black market for falcon trade.
- Need for more capacity building training.

- Inadequate data management.
- Lack of more effective communication and cooperation between government and non-government agencies.

Q18: Do you know any cases of falcon smuggling in the State of Kuwait?

Nine respondents (42.8% of the sample) stated "Yes", while more than one half (12 respondents = 57.1% of the sample) stated that they were not aware of smuggling of falcons.

Q19: What are the legal procedures employed when confiscating smuggled falcons?

Only six respondents (28.5% of the sample) were able to describe the procedures correctly, while the majority (15 respondents = 71.4%) did not know the legal procedures.

Q20: Are there any environmental awareness programs conducted by agencies responsible for implementation of CITES in the State of Kuwait?

Only seven respondents (33.3%) stated that there are awareness programs, and of these five (71.4%) were able to name the programs. However, the other two respondents (28.5%) were not able to mention any programs. On the other hand, four respondents (19%) of the sample stated that there are no awareness programs. The majority of those questioned (10 respondents = 47.6%) did know if awareness programs existed.

# 4.2.3.2 Questionnaire completed by falconers (hobbyists, traders, trainers and breeders):

A total of 28 falcon hobbyists, traders, trainers and breeders participated in a survey by answering a questionnaire composed of 28 questions. Twenty seven of the participants stated that they owned falcons at the time when they completed the survey or at a previous time. The number of falcons owned varied between one and 35 specimens. The majority of the respondents (86.9%) stated that they owned less than 5 falcons, while only two respondents

(8.7%) said they owned between 10 and 15 falcons. Only one respondent reported owning a large number of falcons, namely 35 specimens.

As far as the species are concerned, the majority of the respondents reported that they owned specimens of the Gyr falcon, (*Falco rusticolus*) (total of 41 birds), followed by specimens of the Saker falcon, (*F. cherrug*) (total of 21 birds). Other specimens reported such as the Peregrine falcon (*F. peregrinus*) and the hybrids Gyr X Peregrine and Gyr X Saker, were owned in small numbers not exceeding six birds. It should be noted that many falcon owners possess specimens of more than one species of falcons.

The majority of the respondents (24 = 85.7%) said they owned falcons as a hobby, while three respondents (10.7%) said they owned falcons as a hobby and for trading. Only one respondent (3.5%) said that he owned falcons for trade.

The majority of the respondents (22 = 78.5%) knew the origin of their falcons, while six respondents (21.4%) said they did not know the origin of their falcons. The majority of respondents said they imported their falcons from three countries: Germany, Austria and the Islamic Republic of Iran. Other high ranking exporting countries are France, Pakistan, Syria and Iraq. A few imports were reported from United Kingdom of Great Britain and Northern Ireland, Kazakhstan, Turkmenistan, Uzbekistan, Mongolia, the Russian Federation, the Netherlands and the United States of America. Only one respondent stated that his falcons were from the State of Kuwait.

The majority of falcon owners (17 = 60.7%) said they did not have CITES permits for their birds because their birds were mainly caught or bought in Kuwait. Eleven of the respondents (39.3%) reported that they had permits for their birds. However, there were varying answers

as to how many of their birds had permits. Overall, 88.2% of birds in their possession had CITES permits. These respondents indicated that the reason for not having permits for some birds was because these birds were locally caught wild Saker falcons (*Falco cherrug*).

Majority of the respondents are hobbyists, and consequently, stated that the total number of birds they acquired every year ranged between one and four falcons. Only three of the respondents indicated that they possessed between five and ten falcons. Moreover, three of the respondents said they were traders/hobbyists. One of these traders possesses a small number of falcons (12 to 15), while the other two have 130 to 200 birds each.

When asked how they obtained their falcons, 22 respondents (78.6%) stated that they purchased their falcons, while the remaining six respondents (21.4%) reported that they either purchased or received the falcons as gifts. When the respondents were asked if the falcons that were purchased or received as gifts had CITES permits when they were acquired, only nine respondents (32.1%) answered affirmatively.

When questioned on the origin of the falcons, 17 respondents (60.7%) said they bought the falcons at a local market. Seven respondents (25%) stated that they obtained their falcons from a local dealer or by importing them from other countries. The remaining four respondents (14.3%) reported that they purchased their falcons from 11 countries. Four of the countries are neighboring Gulf countries, while the remaining seven are from Asia, Europe and North America (the United States of America). As shown in Table VII the majority of falcons (25 out 38 = 65.8%) were purchased in neighboring Gulf countries.

Table VII. Countries in which falcons were purchased and number of falcons purchased in each country.

Co	untry of purchase	Number of falcons		
Neighboring Countries				
Kingdom of Saudi Arabia		7		
Ki	ngdom of Bahrain	4		
	State of Qatar	5		
Un	ited Arab Emirates	7		
	Other Countries			
	Austria	5		
Germany		4		
United Kingdom of Great Britain and		2		
Northern Ireland		2		
United States of America		1		
Kazakhstan		1		
Mongolia		1		
Russian Federation		1		
Total	11	38		

When respondents were asked if they faced problems with importing procedures, an equal number of affirmative and negative responses were received. Below are the main reported problems:

- 1- The quarantine period of 21 days is too long, especially since the falcon owners must provide the daily meals for their birds.
- 2- Often times the falconers miss the hunting season because their birds are kept for too long in quarantine.
- 3- Some of the technical staff of the quarantine facility lack qualifications or experience in dealing with falcons.
- 4- The quarantine procedures are long and complicated.

When respondents were asked about the most difficult problems which they face as falconers, they stated the following problems:

- 1- Provision of health care for falcons, including:
  - Lack or insufficient number of falcon hospitals or clinics that can provide adequate health care to falcons.
  - Lack of skilled professionals in falcon health care.
  - Spread of diseases among falcons especially infestation with nematodes.
- 2- Strict hunting regulations in the State of Kuwait, including:
  - Too many protected or restricted areas in which hunting is not permitted.
  - A high number of falcon hunters relative to the small area of the State of Kuwait has created fierce competition.
  - Disappearance (extinction) of the main hunting bird the Houbara Bustard (*Chlamydotis undulata*) and other birds such as ducks and curlews.

- 3- Difficult procedures for obtaining CITES import and export permits, including:
  - Lengthy and complicated procedures, including obtaining approvals and signatures from too many officials at the CITES Managing Authority.
  - Officials are located in too many locations in different parts of the city.
  - Favoritism shown by certain officials to some falconers, particularly those who are better known to them.
- 4- Problems associated with keeping falcons and hunting with them, including:
  - Finding effective treatments for sick and injured falcons.
  - Difficulty in training falcons and lack of sufficient training camps.
  - Falcon keeping requires a special place equipped with appropriate equipment and facilities which cannot be maintained by many falconers. To solve this problem, many falconers use falcon keeping centers at a high cost to take care of their birds. There are only a few such centers which operate without permits.
  - Feeding of the falcons is also difficult and costly. In addition, there is a lack of appropriate advice by qualified and experienced veterinarians.

When asked about the type of food given to the falcons, the majority of respondents stated that they feed their falcon quail and pigeon meat which are obtained locally. Other types of feed include chicken eggs and meat. Pure beef and lamb meats are also used as feed in addition to meat from wild desert animals such as jerboas and rabbits. A few respondents stated that falcons are fed different types of food according to the season.

When asked whether health care was provided for the falcons, 25 respondents (89.2%) answered affirmatively. The majority stated that health care was provided in veterinary

hospitals. Three of the respondents (10.7%) reported the provision of health care through personal experience.

With regard to preferred falcon species for hunting or trading, the majority (20 = 71.4%) of the respondents reported that they prefer the Saker falcon (*Falco cherrug*). The next favored species is the Peregrine falcon (*F. peregrinus*) followed by the Gyr falcon (*Falco rusticolus*). The hybrid species Gyr x Peregrine (*F. rusticolus x F. peregrinus*) is also favored but to a lesser degree. Regardless of the species, the majority of the respondents stated that they prefer wild falcons over those bred in captivity. The reason for this is that the wild falcons are natural hunters and do not require extensive and lengthy training.

The respondents identified 12 countries as their preferred area for hunting with falcons. These are, in order of importance, Saudi Arabia, Iraq, Morocco, Syria Arab Republic, Algeria, Islamic Republic of Iran, Libyan Arab Jamahiriya, Jordan, Egypt, Kuwait, Sudan and Mongolia. When respondents were asked about the procedures for importing their hunting falcon into these countries, ten respondents (35.6%) stated that the procedures are fast and uncomplicated while five respondents (17.8%) said the procedures are complicated. The majority of the respondents (13 = 46.4%) reported that importation of falcons to some of these countries was not permitted.

When the participants were asked whether or not they knew about the existence of updated statistics for the number of falcons in the State of Kuwait, only five respondents (17.8%) said that they were aware of such statistics. In response to the question concerning the number of falconers in the State of Kuwait, less than half of the respondents (13 = 46.4%) gave an affirmative answer. However, when those were asked to give the actual number of the falconers, their answers varied greatly between a low of 100 and a high of 70,000. One participant said that 15% of the Kuwait population are falconers. Some participants divided

the falconers into categories such as professional falconers ( $\approx 20\%$ ), semi-professional falconers ( $\approx 35\%$ ), hobbyist falconers ( $\approx 30\%$ ) and beginner falconers ( $\approx 15\%$ ).

To gain awareness of the degree of communication and interaction between and among falconers, this target group was asked if they knew of the existence of any union or association of falconers in the State of Kuwait. Eight respondents (28.5%) stated that there was such a union or association, while 16 respondents (57.1%) stated that there was no such union or association. Only four respondents (14.2%) stated that they did not know of the existence of such associations. When the eight respondents who answered affirmatively were asked about the number of such organizations they stated that there was only one organization called The Kuwait Falconers Committee, but it is no longer active. When respondents were asked about the benefits they receive from the unions and associations, they reported several benefits such as solving problems associated with falconry, providing health care for falcons, conducting competitions and facilitating the exchange of knowledge and trade in falcons.

Concerning issues related to the international trade of falcons and enforcement of CITES regulations by the State of Kuwait, respondents were asked nine questions. An analyses of the responses is presented below:

In general, the majority of respondents, 18 out of 28 (64.3%) stated that they are familiar with CITES. However, the majority of this group of respondents (10 = 55.5%) stated that they have little knowledge about the Convention and its requirements, while five respondents (27.7%) stated that they had good knowledge regarding CITES. Only three respondents (16.6%) stated that they have moderate knowledge about the Convention. Eighteen respondents (64.3%) stated that they did not know the names of the government agencies in the State of Kuwait responsible for the implementation of the Convention. Ten respondents (53.7%) stated that they know the responsible agencies, but they failed to mention all the relevant agencies.

The majority of the respondents (17 = 60.7%) stated that they do not know the required administrative procedures for obtaining CITES permits. The remaining 11 respondents (39.3%) stated that they know the procedures and described them correctly.

Concerning possession of falcon passports, only 12 respondents (42.8%) stated that they have passports for their falcons. The number of passports possessed by those respondents varied between one and 14. When respondents with passports for their falcons were asked if the procedures for obtaining passports and CITES permits were complicated, responses varied. One half of the participants (14) stated that the procedures are straightforward and fast. Six respondents (21.4%) stated that the procedures are straightforward but slow. The remaining eight respondents (28.6%) stated that the procedures are complicated, difficult and slow.

In the follow-up question as to what were the difficulties for obtaining falcon passports and CITES permits, the following difficulties were reported:

- 1- Personnel in charge of issuing the permits are not trained for performing this task.
- 2- High fees are charged for the CITES permit.
- 3- Lack of clear instructions for obtaining passport and the CITES permit.
- 4- Lengthy and complicated procedures.

The majority of respondents (22 = 78.6%) stated that the responsible agency for CITES implementation in the State of Kuwait does not provide sufficient and useful information on trade in falcons. When the survey Participants were asked how the procedures can be improved, the following suggestions were received:

- 1- More streamlined issuance of CITES permits through a central location.
- 2- Establishment of a database on falcons, falconers and traders in order to reduce the information required to be presented by falconers each time they apply for permits.

3- Preparation of awareness and educational brochures for the falconers aimed towards better familiarization with the registration procedures.

When the survey participants were asked if falcon passports were an effective document for trans-boundary movement of falcons, more than one half of the respondents (16 = 57.1%) stated that they were ineffective. The reason given was that not all countries accept the passport as a legal document in lieu of the CITES permit.

With regard to quarantine procedures for imported falcons, one half of the respondents (14) stated that the procedures were easy and fast. Five respondents (17.8%) stated that the procedures were difficult, but did not elaborate. Nine of the respondents (32.1%) stated that the procedures are complicated. This group also did not elaborate as to how the procedures were complicated.

In the final question the respondents were asked if they had any suggestions to agencies responsible for the implementation of CITES in the State of Kuwait for improving the procedures for legally possessing and trading falcons. The following suggestions were given:

- 1- Establish technically advanced specialist hospitals for falcons.
- 2- Provide better facilitation for exit and entry of falcons at airports and boarders.
- 3- Reduce the period of quarantine.
- 4- Establish an organization for falconers (such as a union or association).
- 5- Convince other countries that trade in falcons to accept falcon passports as a legal document for the trans-boundary movement of falcons.
- 6- Establish an official falcon trade market.
- 7- Recognize falconry as a sport and provide it with financial and legal support provided to other sports.

- 8- Organize awareness seminars and workshops for falconers to better familiarize them with CITES and its requirements especially with regard to the trade in falcons.
- 9- Publish, on a regular basis, CITES awareness information in the media.

#### V. DISCUSSION

The present study has shown that falconry is an important sport and hobby practiced by many Kuwaiti nationals. This study has also shown that trade in falcon is an important business. However, the results of the study indicate that there are many problems which need to be addressed in order that the trade in falcons is more effectively regulated. The problems can be divided into two main categories: administrative—legal problems and problems associated with CITES implementation in falcon trade. Additionally the study has shown that there are many problems encountered by falconers as main stakeholders.

## Administrative-Legal problems:

The results of this study indicate that there are several administrative-legal problems associated with the effective implementation of CITES regulations related to the trade in falcons. One of the main problems is that the personnel at both national CITES Managing and Implementing Authorities are not falcon specialists. They are technical staff from various other disciplines who perform routine administrative work. Therefore, there is great need for increasing the number of qualified and trained personnel who are in charge with regulating trade in falcons.

Additionally, there exists a need for the allocation of a special budget for regulating the trade in falcons and for increasing public awareness and training of personnel. There is also a need for an improved CITES permit issuing system coupled with better data administration and management and analyses of the database. The results of this study show that there are discrepancies and deficiencies in data keeping and management with regard to the trade in falcons. A good example is the discrepancy found in the CITES Trade Database regarding numbers of specimens reported by exporting and importing countries (Table VIII).

Table VIII. Number of imported and exported falcons to and from the State of Kuwait as reported by the exporting and the importing countries (2003-2008).

Number of falcons reported by Kuwait as exports	Number of falcons reported by countries as imports from Kuwait	Difference	Number of falcon reported by Kuwait as imports	Number of falcons reported by countries as exports to Kuwait	Difference
1,197	184	1,013	1,106	1,614	508

There is also need for undertaking in-depth scientific studies in order to evaluate the current situation of falcon populations in the State of Kuwait. Old laws and decisions and mainly EPA's Decision No. 1 of 2005 which prohibits hunting of birds need to be re-evaluated.

## Implementation of CITES with regard to the trade in falcons:

The State of Kuwait has given responsibility for regulation of the trade in falcons to three agencies: the two CITES Management Authorities (EPA and PAAF) and Kuwait Customs. The Scientific Authority provides advice to the Management Authorities on whether or not a proposed export of specimens of species listed on the CITES Appendices will be detrimental to the survival of the species involved.

In compliance with CITES requirements, the State of Kuwait does not allow the exit or the entry of falcons without the requisite CITES documentation. During the period from 2003 to 2008 the State of Kuwait issued 923 export and import permits for all CITES fauna and flora species including falcons.

The present study has shown that the process of obtaining a CITES permit for falcons is very tedious, time consuming and expensive. Moreover, each permit is valid for one border crossing only. In order to lessen the burden of obtaining a CITES permit, the State of Kuwait has adopted the falcon passport system.

## The Falcon Passport System:

The falcon passport was first introduced by UAE in 2002 (CITES, 2002). The State of Qatar was the second country to adopt the system in 2004 (The Peninsula, 2004) and The State of Kuwait became the third country to adopt the system in 2006. Recently, the Kingdom of Saudi Arabia has also issued falcon passports (Al-Watan Online, 2010). Despite its

advantages, the falcon passport is not accepted by most countries. It is suggested that the Gulf countries submit a proposal to the next Conference of the Parties to adopt the passport system for international trade in falcons. The passport will save time and effort for officials and falcon owners since its validity is for a long period and can be used repeatedly during the validity period.

The data analyses on the issuing of falcon passports by the State of Kuwait have indicated that when the system was first used, a large number of passports were issued for wild falcons listed in CITES Appendices I (40 passports in 2006 and 12 passports in 2007) (Fig. 17). This is due to the fact that the Management Authority wanted to encourage falcon owners to register their falcons whether or not they had CITES permits.

The present study shows that there are several important issues and problems related to effective implementation of CITES with regard to the trade in falcons. The most important of these problems are:

- 1- The Officials in charge of implementing CITES regulations related to trade in falcons are not fully aware of regulations and procedures and therefore their levels of expertise need to be increased. Furthermore, some of these personnel need to be encouraged to undertake higher education and training courses leading to Masters and Ph.D. degrees so they can train others and become effective participants in meetings of the Conference of the Parties to CITES, workshops and committees.
- 2- The number of personnel in charge of issuing CITES permits for trade in falcons is not sufficiently large to expedite procedures.

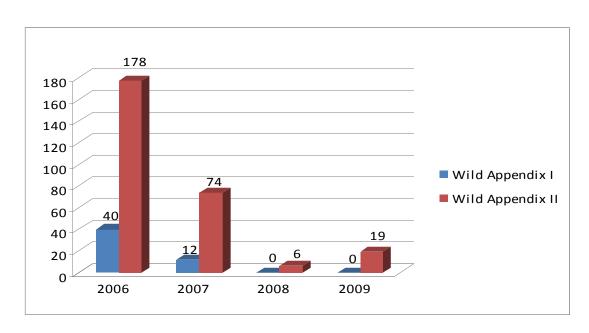


Figure 17. Total number of passports issued for wild falcon species listed in CITES Appendices I and II from 2006 to 2009.

- 3- The budget is limited since there are no specific funds allocated for implementation of CITES in general and the trade in falcons in particular.
- 4- Recent scientific studies for evaluating current status of falcons in the State of Kuwait are lacking especially with regards to falcon migration periods, reproductive seasons, natality, seasonal abundance of different falcon species and falcon health problems.
- 5- The quarantine facilities, especially at the Kuwait International Airport, are too small and poorly equipped.

# <u>Problems encountered by falconers:</u>

In this study, the term falconers is used to refer to hobbyists (those who practice hunting with falcons), falcon traders, falcon breeders and falcon trainers. The problems differ for each of these groups. Nevertheless, there are some common issues which concern all falconers.

The data received from the questionnaires have revealed that falcon hobbyists are facing many problems which prevent them from practicing their hobby in the State of Kuwait. The main obstacle is the EPA Decision No.1 issued in 2005 which prohibits hunting of all types of native and migratory marine and terrestrial birds (including falcons). The main objective of this decision was to prevent the spread of the Avian influenza virus. Despite the fact that the Avian influenza is no longer a major health concern, this decision is still in force. The decision has forced falcon hobbyists to go to other countries to practice their sport. This means that they have to transport their falcons and captured birds across national borders. However, falconers stated that they encounter many problems in hunting in other countries. The most important problems identified by them are:

- 1- Very lengthy and complicated procedures for obtaining CITES permits.
- 2- High fees charged for obtaining CITES permits.
- 3- Strict quarantine procedures.

4- The falcon passport issued by the State of Kuwait is not very useful since most countries do not recognize it in lieu of the CITES permit.

Dealing with such problems requires a very effective CITES Regulatory Authority and development of a technically advanced permit issuing system. It also requires better coordination and cooperation between concerned countries, particularly exporting and importing countries and countries in which falcon hunting is permitted.

Falcon traders faced some of the problems identified by falcon hobbyists and also, the following problems:

- 1- Difficulty in obtaining commercial permits for the trade in falcons from the Kuwait Ministry of Trade and Industry. The result is that a few traders have official trade permits.
- 2- Lack of an official market for the trade in falcons such as those found in other Gulf Countries.
- 3- Lack of proper facilities for keeping and caring for falcons especially during the feather changing season (April to September). This problem limits the number of falcons which can be owned by any trader in addition to paying high amounts for having his falcons cared for.

Since hunting of falcons is not permitted in the State of Kuwait, several falconers have started to breed falcons in captivity. However, they face many problems, namely:

- Non-allocation of land lots by concerned government authorities to falcon breeders for developing such facilities.
- 2- Lack of encouragement and support from the concerned government authorities for captive breeding of falcons.

Falcon trainers are specialized in training captive bred and wild falcons. Each falcon has its own character and requires special handling during its training period. The trainers are skilled people with high professional expertise. The present study has shown that there are very few falcon trainers in the State of Kuwait and most of them are non-Kuwaitis. Therefore, this aspect of falconry needs special attention. High technical training programs could be initiated by the concerned government authorities with the aim of making the State of Kuwait a regional center for falcon training which could generate jobs and income especially since training is a costly operation.

### Problems common to all falconers:

The present study indicates that there are a number of issues and problems which are common to all falconers. The most important of these are:

- 1- Falconers are not officially recognized as a specialist group of hobbyists, traders, breeders and trainers, and consequently, are not given the right to form their own union, society or organization.
- 2- Additional falcon hospitals and treatment centers are greatly needed.
- 3- There is no official market for trading falcons such as those found in several Gulf countries. Alternatively, many falcon traders use the Internet to advertise their falcons to potential buyers.
- 4- Sufficient holding and keeping facilities for falcons are also lacking, which has forced falconers to limit the number of falcons they own. At present, most falconers keep their falcons at home. This is a dangerous practice especially if the falcons are infected with contagious diseases.
- 5- Most Gulf countries do not permit falconers to transport their falcons across borders.
- 6- Lack of educational programs for falconers especially in regards to obtaining CITES permits.

The present study has shown that the State of Kuwait is an important center for the trade in falcons. Despite the low number of falcons sold locally every year (15-25), the total monetary value of the sales is very high. Moreover, although the average price of a falcon is less than US\$ 15,000, some rare falcons are sold for very high prices reaching US\$ 60,000 (Al-Salaili, 2010). More importantly, the State of Kuwait is an important importing and re-exporting country as shown by the total number of falcons traded every year. Therefore, it is important that this activity be more effectively regulated and provided with more support from the Government. The main objective of the regulation should be to ensure the legal trade in falcons in order to prevent or minimize smuggling and better conserve wild falcon species.

## VI. SUGGESTIONS FOR IMPROVEMENT

The State of Kuwait has been an active member of CITES since it ratified the Convention in 2002. In compliance with CITES obligations, two Management Authorities (EPA and PAAF) and a national Standing Committee for regulating trade in endangered species (also designated as CITES Scientific Authority) were designated (pursuant to Article IX of the Convention). Since its ratification of the Convention, the State of Kuwait has participated actively in CITES meetings of the Convention of the Parties, workshops and Standing Committees meetings.

With regard to the regulation of the trade in falcons, the State of Kuwait issues export and import permits and is vigilant at entry points to prevent illegal trans-boundary transport of falcons. However, there is great need for improving the existing procedures to establish more effective control of the trade in falcons. Also many important issues need to be addressed with the aim of supporting falcon hobbyists, trainers, traders and breeders since falconry is an important traditional hobby and sport.

To facilitate more effective regulation of the trade in falcons and implementation of CITES obligations, the following actions are recommended:

- 1- Adoption of easier and more efficient procedures for issuing falcon permits by using electronic forms and online registration and by centralizing the permit issuing sectors and departments.
- 2- Improving the management of data on the trade in falcons and making better analyses using this data. This requires investing in more advanced electronic storage, online data and information retrieval systems.

- 3- Improving the technical skills of personnel in charge of CITES implementation in trade in falcons.
- 4- Establishing better falcon quarantine facilities at all entry points.
- 5- Reviewing the existing legislation and suggesting new more effective laws to encourage effective regulation of the trade in falcons and better government support for the sport of falconry.
- 6- Increasing public awareness using all public communication media. In addition, there is a need of preparing brochures for falconers informing them about procedures and regulation related to the trade in falcons, especially in regards to procedures and requirements for obtaining CITES export and import permits. Falconers should be made aware that they are the main stakeholders and therefore, their cooperation with the authorities is crucial for the conservation of falcons and wildlife in general. Awareness materials should also be prepared for educating the general public on importance of falconry for the State of Kuwait and on the importance of protecting bird diversity. Cooperation with non-governmental organizations, such as the Kuwait Environment Protection Society (KEPS) and the Volunteer Working Center, is crucial for increasing public awareness about falcons and the importance of falconry for the State of Kuwait.
- 7. Environmental protection laws should be strictly enforced. Illegal hunting and trade of falcons should be monitored and offenders should be prosecuted in accordance to legislation. This requires cooperation between the CITES Management and the Enforcement Authorities as well as other governmental authorities such as the Ministry of Interior and the Kuwait Customs.
- 8. Enhance cooperation between members of the GCC in matters related to the trade in falcons.

The following suggestions are presented to assist falconers to better pursue falconry as a hobby and as a business:

- 1- The Government should officially recognize the establishment of a union or organization for falconers. This will enable the falconers to develop communication networks, more easily exchange information and organize meetings, seminars and exhibitions.
- 2- The Government should allocate land for the keeping, training and breeding of falcons. This will reduce or eliminate problems associated with keeping falcons at private residences and will encourage captive breeding which will reduce pressure on the populations of wild falcons.
- 3- The Government should establish a local falcon market to encourage the State of Kuwait to become a major regional player in the trade in falcons. Such a market would also decrease black market activity with regard to the trade in falcons.
- 4- The CITES Managing Authorities to adopt easier procedures for issuing CITES falcon permits and passports, as well as conducting awareness programs for falconers in order to better familiarize them with procedures for obtaining CITES falcon permits and passports.
- 5- The Government should encourage the private sector and provide it with funds and easy loans to establish more modern and larger falcon hospitals and treatment centers.

Implementation of the above recommendations may assist the State of Kuwait to meet more effectively its obligations under CITES. It would also contribute to legal, sustainable and traceable international trade in falcons. This in turn could promote falconry in the State of Kuwait and assist the nation in becoming an important center of trade and sport with falcons. Such a development could generate new jobs and boost the local economy.

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Interview with the Kuwaiti falconer Mr. Abdullah Nashi Al-Rasheedi



Mr. Bader Al-Moharib, the Kuwaiti Falcon trainer and breeder.



Mr. Khalid Al-Nasrallah, Head of the Protected Areas Group at the Volunteer Work Center.



Mr. Al-Rashidi showing a rare falcon.



Inside the falcon keeping area at Mr. Al- Moharib's facility.



Miss. Shereefa Al-Salem, Senior Biological Researcher at Kuwait EPA and the Convener of the National Committee for CITES.



### UNIVERSIDAD INTERNACIONAL DE ANDALUCÍA

Sede Antonio Machado, Baeza (Jaén) – Spain

2008-2010 BIENNIUM

VIII. APPENDICES

## **Appendix I**

Falcon Passports Database (2006 – 2009)

**Kuwait Zoo - PAAF** 

### Falcon Passports Database (2006 – 2009) - Kuwait Zoo (PAAF)

No. of Passport	Year	Species	Sex	Source	Country of origin	Appendix
10	2006	Falco cherrug	М	WILD	KUWAIT	II
16	2006	Falco cherrug	М	WILD	IRAN	II
1	2006	Falco cherrug	М	WILD	KAZAKHSTAN	II
1	2006	Falco cherrug	М	WILD	BELGIUM	II
3	2006	Falco cherrug	М	WILD	MONGOLIA	II
1	2006	Falco cherrug	М	WILD	TAJIKISTAN	II
39	2006	Falco cherrug	F	WILD	KUWAIT	II
1	2006	Falco cherrug	F	WILD	EGYPT	11
1	2006	Falco cherrug	F	WILD	CHINA	11
44	2006	Falco cherrug	F	WILD	IRAN	11
4	2006	Falco cherrug	F	WILD	U.A.E.	11
6	2006	Falco cherrug	F	WILD	SYRIA	11
4	2006	Falco cherrug	F	WILD	U.K.	II
2	2006	Falco cherrug	F	WILD	KAZAKHSTAN	II
1	2006	Falco cherrug	F	WILD	GERMANY	II
1	2006	Falco cherrug	F	WILD	U.S.A.	II
22	2006	Falco cherrug	F	WILD	MONGOLIA	II
8	2006	Falco cherrug	F	WILD	PAKISTAN	II
3	2006	Falco cherrug	F	WILD	LIBYA	II
3	2006	Falco cherrug	F	WILD	RUSSIAN FEDERATION	II
3	2006	Falco cherrug	F	WILD	IRAQ	II
1	2006	Falco cherrug	F	WILD	SOMALIA	II
1	2006	Falco cherrug	F	WILD	MYANMAR	II
1	2006	Falco cherrug	F	WILD	TURKMENISTAN	II
1	2006	Falco cherrug	F	CAPTIVE	GERMANY	II
1	2006	Falco biarmicus	F	WILD	IRAQ	II
2	2006	Falco peregrines	М	WILD	IRAQ	ı
1	2006	Falco peregrines	М	CAPTIVE	U.K.	I
12	2006	Falco peregrines	F	WILD	KUWAIT	ı
4	2006	Falco peregrines	F	WILD	IRAN	I
1	2006	Falco peregrines	F	CAPTIVE	U.S.A.	Ī
1	2006	Falco rusticolus	М	WILD	KUWAIT	ı
3	2006	Falco rusticolus	М	WILD	U.K.	ı
1	2006	Falco rusticolus	М	CAPTIVE	U.A.E.	ı
2	2006	Falco rusticolus	M	CAPTIVE	U.K.	i
 1	2006	Falco rusticolus	M	CAPTIVE	GERMANY	Ī
2	2006	Falco rusticolus	М	CAPTIVE	CANADA	ı
7	2006	Falco rusticolus	F	WILD	KUWAIT	I
10	2006	Falco rusticolus	F	WILD	U.K.	I
1	2006	Falco rusticolus	F	WILD	U.S.A.	ı
2	2006	Falco rusticolus	F	CAPTIVE	U.K.	ı
1	2006	Falco rusticolus	F	CAPTIVE	U.S.A.	I
1	2006	Falco rusticolus X F.cherrug	F	CAPTIVE	U.K.	ı
2	2006	Falco rusticolus X F.cherrug	F	CAPTIVE	U.K.	Ī
3	2006	Falco rusticolus X F.cherrug	F	CAPTIVE	U.K.	
1	2006	Falco rusticolus X F.cherrug	F	CAPTIVE	AUSTRIA	·

No. of Passport	Year	Species	Sex	Source	Country of origin	Appendix
1	2006	Falco rusticolus X F.cherrug	F	CAPTIVE	GERMANY	I
3	2006	Falco rusticolus X F.cherrug	F	CAPTIVE	U.K.	I
1	2006	Falco peregrinus X F.rusticolus	F	CAPTIVE	GERMANY	I
1	2006	Falco peregrinus X F.rusticolus	М	CAPTIVE	GERMANY	I
1	2006	Falco rusticolus X F.peregrinus	М	CAPTIVE	GERMANY	I
1	2006	Falco rusticolus X F.peregrinus	М	CAPTIVE	U.S.A.	I
3	2006	Falco rusticolus X F.peregrinus	F	CAPTIVE	U.K.	I
1	2006	Falco rusticolus X F.peregrinus	F	CAPTIVE	GERMANY	I
2	2006	Falco rusticolus X F.peregrines	М	CAPTIVE	U.K.	I
8	2006	Falco rusticolus X F.peregrines	F	CAPTIVE	U.K.	I
1	2006	Falco rusticolus X F.peregrines	F	CAPTIVE	GERMANY	I
1	2006	Falco rusticolus X F.peregrines	F	CAPTIVE	U.K.	1
1	2006	Falco rusticolus X F.peregrines	F	CAPTIVE	DENMARK	1
1	2007	Falco cherrug	F	WILD	IRAN	II
2	2007	Falco cherrug	М	WILD	KUWAIT	II
2	2007	Falco cherrug	М	WILD	IRAN	II
1	2007	Falco cherrug	М	WILD	U.A.E.	II
1	2007	Falco cherrug	М	WILD	PAKISTAN	II
46	2007	Falco cherrug	F	WILD	KUWAIT	II
9	2007	Falco cherrug	F	WILD	IRAN	II
3	2007	Falco cherrug	F	WILD	K.S.A.	II
1	2007	Falco cherrug	F	WILD	U.A.E.	II
1	2007	Falco cherrug	F	WILD	MONGOLIA	II
6	2007	Falco cherrug	F	WILD	PAKISTAN	II
1	2007	Falco cherrug	F	WILD	K.S.A.	II
1	2007	Falco cherrug	F	CAPTIVE	U.K.	II
3	2007	Falco peregrines	F	WILD	KUWAIT	I
1	2007	Falco peregrines	М	WILD	KUWAIT	I
8	2007	Falco peregrines	F	WILD	KUWAIT	I
1	2007	Falco rusticolus	М	CAPTIVE	U.A.E.	I
1	2007	Falco rusticolus	М	CAPTIVE	GERMANY	I
1	2007	Falco cherrug X F.pererinus	F	CAPTIVE	SCOTLAND	I
1	2007	Falco rusticolus X F.cherrug	М	CAPTIVE	U.K.	I
1	2007	Falco peregrinus X F.rusticolus	F	CAPTIVE	GERMANY	I
2	2007	Falco rusticolus X F.peregrinus	F	CAPTIVE	U.K.	I
1	2008	Falco cherrug	М	WILD	MONGOLIA	II
2	2008	Falco cherrug	F	WILD	IRAN	II
3	2008	Falco cherrug	F	WILD	MONGOLIA	ll l
1	2008	Falco cherrug	F	CAPTIVE	THE NETHERLANDS	II
2	2008	Falco cherrug	F	CAPTIVE	THE NETHERLANDS	II
1	2008	Falco rusticolus	М	CAPTIVE	U.K.	I
1	2008	Falco rusticolus	М	CAPTIVE	KUWAIT	I
2	2008	Falco rusticolus	М	CAPTIVE	U.K.	I
1	2008	Falco rusticolus	М	CAPTIVE	U.K.	I
3	2008	F.rusticolus X F.cherrug	М	CAPTIVE	U.K.	I
1	2008	F.rusticolus X F.cherrug	F	CAPTIVE	U.K.	I
1	2008	F.rusticolus X F.cherrug	F	CAPTIVE	U.K.	I
1	2008	Falco peregrinus X F.rusticolus	F	CAPTIVE	GERMANY	Ī

No. of Passport	Year	Species	Sex	Source	Country of origin	Appendix
1	2008	Falco rusticolus X F.peregrinus	F	CAPTIVE	U.K.	I
1	2008	Falco rusticolus X F.peregrinus	F	CAPTIVE	U.K.	I
1	2008	F. peregrinus X F.cherrug-rusti-rusti	F	CAPTIVE	U.A.E.	I
1	2009	Falco cherrug	F	CAPTIVE	THE NETHERLANDS	II
11	2009	Falco cherrug	F	WILD	KUWAIT	II
1	2009	Falco cherrug	F	WILD	IRAN	II
1	2009	Falco cherrug	F	WILD	K.S.A.	II
4	2009	Falco cherrug	F	WILD	U.A.E.	II
1	2009	Falco cherrug	F	WILD	U.K.	II
1	2009	Falco cherrug	F	WILD	MONGOLIA	II
3	2009	Falco cherrug	F	CAPTIVE	THE NETHERLANDS	II
1	2009	Falco rusticolus	М	CAPTIVE	THE NETHERLANDS	I
1	2009	Falco rusticolus	F	CAPTIVE	THE NETHERLANDS	I
1	2009	Gyr F. X Saker F.	F	CAPTIVE	U.K.	I
1	2009	Saker -Falco cherrug	F	CAPTIVE	THE NETHERLANDS	II
1	2009	Gyr F. x Peregrine F.	F	CAPTIVE	U.K.	I
5	2009	Saker -Falco cherrug	F	CAPTIVE	THE NETHERLANDS	II
1	2009	Gyr F. X Peregrine F.	F	CAPTIVE	GERMANY	I
3	2009	Falco rusticolus X F.cherrug	F	CAPTIVE	U.K.	I
1	2009	Falco rusticolus X F.cherrug	М	CAPTIVE	U.K.	I
2	2009	Falco rusticolus X F.cherrug	F	CAPTIVE	U.K.	I
1	2009	Falco rusticolus X F.cherrug	М	CAPTIVE	U.K.	I
1	2009	Falco rusticolus X F.cherrug	F	CAPTIVE	U.K.	I
1	2009	Falco rusticolus X F.cherrug	М	CAPTIVE	U.K.	I
1	2009	Falco peregrinus X F.rusticolus	F	CAPTIVE	U.S.A.	I
1	2009	Falco rusticolus X F.peregrinus	М	CAPTIVE	U.K.	I
1	2009	Falco rusticolus X F.peregrinus	F	CAPTIVE	U.K.	I
1	2009	Gyr X Gyr X Gyr /cherrug Falcon	F	CAPTIVE	U.K.	I
1	2009	Falco rusticolus X F. peregrines	М	CAPTIVE	U.K.	I
2	2009	Falco rusticolus X F. peregrines	F	CAPTIVE	U.K.	I
1	2009	Falco rusticolus X Falco cherrug	М	CAPTIVE	U.K.	I
1	2009	Falco rusticolus X Falco cherrug	F	CAPTIVE	U.K.	I

## **Appendix II**

All Imports of Falcons by the State of Kuwait (2003 - 2008)

**CITES Trade Database** 

### All Imports of Falcons by the State of Kuwait (2003 – 2008), CITES Trade Database

Year	Ann	Taxon	Imn	Emp.	Origin	Imp	orts rep	orte	ed	Ехр	orts rep	orte	d
rear	App.	Taxon	Imp.	Ellip.	Origin	No.	Term	Р	S	No.	Term	Р	S
2003	1	Falco spp.	KW	TD						2	live	Р	W
2003	1	Falco hybrid	KW	AE	DE	2	live	Р	С	5	live	Р	С
2003	1	Falco hybrid	KW	AE	GB					1	live	Р	С
2003	1	Falco hybrid	KW	CZ						8	live	В	С
2003	1	Falco hybrid	KW	CZ		5	live	Р	С				
2003	1	Falco hybrid	KW	CZ		3	live	Т	С				
2003	1	Falco hybrid	KW	GB		36	live	Р	С				
2003	1	Falco hybrid	KW	US		7	live	Р	F				
2003	1	Falco peregrinus	KW	AE		1	live	Р	W				
2003	1	Falco peregrinus	KW	ВН		2	live	Р	U				
2003	1	Falco peregrinus	KW	DK		1	live	Р	С				
2003	1	Falco peregrinus	KW	DK						1	live	Т	С
2003	1	Falco peregrinus	KW	GB						9	live	Т	С
2003	1	Falco peregrinus	KW	GB		9	live	Р	С	3	live	Р	С
2003	1	Falco rusticolus	KW	GB						7	live	Т	С
2003	1	Falco rusticolus	KW	GB		3	live	Р	С	4	live	Р	С
2003	1	Falco rusticolus	KW	US						1	live	Т	F
2003	1	Falco rusticolus	KW	US		1	live	Р	W				
2003	2	Falco cherrug	KW	ВН		1	live	Р	U				
2003	2	Falco cherrug	KW	MN						171	live	Т	W
2003	2	Falco cherrug	KW	XX		10	live	Р	F				
2004	1	Falco hybrid	KW	AE		2	live	Р	С	4	live	Р	С
2004	1	Falco hybrid	KW	AE		3	live	Р	F				
2004	1	Falco hybrid	KW	AN		3	live	Р	С				
2004	1	Falco hybrid	KW	DE		64	live	Р	С				
2004	1	Falco hybrid	KW	DE						57	live	Т	D
2004	1	Falco hybrid	KW	DK		1	live	Т	С				
2004	1	Falco hybrid	KW	GB		25	live	Т	С				
2004	1	Falco hybrid	KW	GB		20	live	Р	С				
2004	1	Falco hybrid	KW	GB		32	live	Т	D				
2004	1	Falco hybrid	KW	IR		1	live	Р	С				
2004	1	Falco hybrid	KW	JO		8	live	Р	С				
2004	1	Falco hybrid	KW	QA		13	live	Р	D				
2004	1	Falco hybrid	KW	QA	DE					1	live	Т	D
2004	1	Falco hybrid	KW	QA	GB					1	live	Р	D
2004	1	Falco hybrid	KW	US		5	live	Р	F				

Voor	Ann	Tayon	Imn	Emn	Origin	Imp	orts repo	orte	d	Ехр	orts rep	orte	d
Year	App.	Taxon	Imp.	Emp.	Origin	No.	Term	P	S	No.	Term	P	S
2004	1	Falco pelegrinoides	KW	AE		1	live	Р	W				
2004	1	Falco peregrinus	KW	DK						1	live	Т	С
2004	1	Falco peregrinus	KW	JO		26	live	Р	W				
2004	1	Falco peregrinus	KW	KE	AE	1	live	Р	W				
2004	1	Falco peregrinus	KW	QA		1	live	Р	W				
2004	1	Falco peregrinus	KW	SY		1	live	Р	W				
2004	1	Falco peregrinus	KW	SY		2	live	Р	С				
2004	1	Falco peregrinus	KW	US		2	live	Р	F				
2004	1	Falco rusticolus	KW	AE		1	live	Р	F				
2004	1	Falco rusticolus	KW	AE		1	live	Р	С	2	live	Р	С
2004	1	Falco rusticolus	KW	GB		1	live	Р	С	7	live	Р	С
2004	1	Falco rusticolus	KW	GB						49	live	Т	D
2004	1	Falco rusticolus	KW	GB		1	live	Т	С	89	live	Т	С
2004	1	Falco rusticolus	KW	NL						3	live	Т	С
2004	1	Falco rusticolus	KW	US						1	live	Т	С
2004	1	Falco rusticolus	KW	US		1	live	Р	F				
2004	2	Falco cherrug	KW	MN						180	live	Т	W
2004	2	Falco cherrug	KW	NL						6	live	Т	С
2004	2	Falco cherrug	KW	QA		1	live	Р	С				
2005	1	Falco hybrid	KW	AE						3	live	Р	F
2005	1	Falco hybrid	KW	AE	AT					1	live	Р	С
2005	1	Falco hybrid	KW	AE	DE					3	live	Р	D
2005	1	Falco hybrid	KW	AT		2	live	Р	С				
2005	1	Falco hybrid	KW	AT						1	live	Т	С
2005	1	Falco hybrid	KW	AT	DE					1	live	Т	С
2005	1	Falco hybrid	KW	ВН	XX	12	live	Т	С				
2005	1	Falco hybrid	KW	CZ						5	live	Т	С
2005	1	Falco hybrid	KW	DE						36	live	Т	D
2005	1	Falco hybrid	KW	DE		47	live	Т	С				
2005	1	Falco hybrid	KW	DE	XX	8	live	Р	D				
2005	1	Falco hybrid	KW	GB		79	live	Т	D				
2005	1	Falco hybrid	KW	GB		16	live	Т	С				
2005	1	Falco hybrid	KW	GB		8	live	Р	С				
2005	1	Falco hybrid	KW	US		29	live	В	F				
2005	1	Falco hybrid	KW	US						16	live	Т	С
2005	1	Falco hybrid	KW	US	XX	1	live	Р	F				
2005	1	Falco hybrid	KW	US	XX	1	live	Р	С				

Voor	Ann	Tayon	lmn	Emn	Origin	Imp	orts rep	orte	d	Exp	orts rep	orte	d
Year	App.	Taxon	Imp.	Emp.	Origin	No.	Term	Р	S	No.	Term	Р	S
2005	1	Falco peregrinus	KW	GB		1	live	Т	D				
2005	1	Falco peregrinus	KW	GB		2	live	Р	С				
2005	1	Falco peregrinus	KW	US		2	live	В	F				
2005	1	Falco rusticolus	KW	GB		1	live	Т	D	22	live	Т	D
2005	1	Falco rusticolus	KW	GB						29	live	Т	С
2005	1	Falco rusticolus	KW	US		10	live	В	F				
2005	1	Falco rusticolus	KW	US						1	live	Т	С
2005	2	Falco biarmicus	KW	SD						1	live	Р	W
2005	2	Falco cherrug	KW	CZ						1	live	Т	С
2005	2	Falco cherrug	KW	MN						131	live	Т	W
2005	2	Falco cherrug	KW	SY						6	live	Р	W
2006	1	Falco hybrid	KW	AE		1	live	Р	F	1	live	Р	F
2006	1	Falco hybrid	KW	AE		1	live	Т	С				
2006	1	Falco hybrid	KW	AE	AT	3	live	Р	С	3	live	Р	С
2006	1	Falco hybrid	KW	AE	DE	2	live	Р	D	13	live	Р	D
2006	1	Falco hybrid	KW	AE	DE	2	live	Т	D				
2006	1	Falco hybrid	KW	AE	GA					1	live	Р	D
2006	1	Falco hybrid	KW	AE	GA	1	live	Р	С				
2006	1	Falco hybrid	KW	AE	GB	1	live	Т	С				
2006	1	Falco hybrid	KW	AT		32	live	Т	С				
2006	1	Falco hybrid	KW	AT						20	live	Р	С
2006	1	Falco hybrid	KW	DE		10	live	Т	D				
2006	1	Falco hybrid	KW	GB		61	live	Т	D				
2006	1	Falco hybrid	KW	GB		32	live	Т	С	40	live	Т	С
2006	1	Falco hybrid	KW	US						4	live	Р	F
2006	1	Falco hybrid	KW	US		1	live	Т	С	1	live	Т	С
2006	1	Falco peregrinus	KW	AT						1	live	Р	С
2006	1	Falco peregrinus	KW	AT		2	live	Т	С				
2006	1	Falco peregrinus	KW	AT	DE	2	live	Р	С	2	live	Р	С
2006	1	Falco peregrinus	KW	GB		25	live	Т	С				
2006	1	Falco peregrinus	KW	US		2	live	В	F				
2006	1	Falco peregrinus anatum	KW	US						1	live	Т	С
2006	1	Falco peregrinus pealei	KW	GB						1	live	Т	С
2006	1	Falco peregrinus pealei	KW	US		4	live	Т	F				
2006	1	Falco rusticolus	KW	AT		2	live	Т	С				
2006	1	Falco rusticolus	KW	AT						1	live	Р	С
2006	1	Falco rusticolus	KW	US		12	live	В	F				
2006	1	Falco rusticolus	KW	US						9	live	Т	С

Year	Ann	Taxon	lmn	Emn	Origin	Imp	orts rep	orte	d	Exp	orts rep	orte	d
rear	App.	Taxon	Imp.	Emp.	Origin	No.	Term	Р	S	No.	Term	Р	S
2006	2	Falco cherrug	KW	AE	DE					16	live	Р	С
2006	2	Falco cherrug	KW	MN						41	live	Т	W
2007	1	Falco hybrid	KW	AE		1	live	Р	F	1	live	Р	F
2007	1	Falco hybrid	KW	AE		2	live	Р	С				
2007	1	Falco hybrid	KW	AE	DE	3	live	Р	D	8	live	Р	D
2007	1	Falco hybrid	KW	AE	DE	1	live	Р	С				
2007	1	Falco hybrid	KW	AE	DK	1	live	Р	С				
2007	1	Falco hybrid	KW	AE	GB					20	live	Р	U
2007	1	Falco hybrid	KW	AE	US	1	live	Т	F				
2007	1	Falco hybrid	KW	AT						14	live	Р	С
2007	1	Falco hybrid	KW	AT		24	live	Т	С				
2007	1	Falco hybrid	KW	GB		6	live	Р	С				
2007	1	Falco hybrid	KW	GB						14	live	Т	D
2007	1	Falco hybrid	KW	GB		80	live	Т	С	35	live	Т	С
2007	1	Falco hybrid	KW	US						1	live	Т	D
2007	1	Falco hybrid	KW	US		8	live	Т	F				
2007	1	Falco hybrid	KW	US		3	live	Р	F				
2007	1	Falco hybrid	KW	US		1	live	Р	D				
2007	1	Falco peregrinus	KW	AE		2	live	Р	С				
2007	1	Falco peregrinus	KW	AT		5	live	Т	С				
2007	1	Falco peregrinus	KW	AT						1	live	Р	С
2007	1	Falco peregrinus	KW	US		7	live	Р	F				
2007	1	Falco rusticolus	KW	AE	GB	11	live	Т	С	11	live	Т	С
2007	1	Falco rusticolus	KW	AE	GB					1	live	Р	С
2007	1	Falco rusticolus	KW	AT						2	live	Р	С
2007	1	Falco rusticolus	KW	AT	NL	8	live	Р	С	7	live	Р	С
2007	1	Falco rusticolus	KW	CA		2	live	Р	С				
2007	1	Falco rusticolus	KW	CA						2	live	Т	D
2007	1	Falco rusticolus	KW	GB		1	live	Р	С				
2007	1	Falco rusticolus	KW	US		2	live	Т	F				
2007	2	Falco cherrug	KW	AT						4	live	Т	С
2007	2	Falco cherrug	KW	AT		1	live	Р	С	1	live	Р	С
2007	2	Falco cherrug	KW	MN						141	live	Т	W
2008	1	Falco hybrid	KW	AE		2	live	Р	С				
2008	1	Falco hybrid	KW	AE		15	live	Т	С				
2008	1	Falco hybrid	KW	AE						1	live	Р	F
2008	1	Falco hybrid	KW	AE	AT					3	live	Р	С
2008	1	Falco hybrid	KW	AE	CZ	1	live	Р	С	1	live	Р	С

Year	Ann	Tayon	lmn	Emn	Origin	Imports reported Exports rep		orts rep	orte	d			
rear	App.	Taxon	Imp.	Emp.	Origin	No.	Term	Р	S	No.	Term	P	S
2008	1	Falco hybrid	KW	AE	DE	11	live	Р	С				
2008	1	Falco hybrid	KW	AE	DE	4	live	Р	D	3	live	Р	D
2008	1	Falco hybrid	KW	AE	DE	3	live	Т	С				
2008	1	Falco hybrid	KW	AE	DE	11	live	Т	D				
2008	1	Falco hybrid	KW	AE	ES	1	live	Р	С				
2008	1	Falco hybrid	KW	AE	GB	2	live	Р	С	2	live	Р	С
2008	1	Falco hybrid	KW	AE	GB	24	live	Т	D				
2008	1	Falco hybrid	KW	AE	GB					23	live	Р	D
2008	1	Falco hybrid	KW	AE	US					1	live	Р	D
2008	1	Falco hybrid	KW	AT		12	live	Т	D				
2008	1	Falco hybrid	KW	AT						10	live	Т	С
2008	1	Falco hybrid	KW	ВН	XX	1	live	Р	С				
2008	1	Falco hybrid	KW	СН	XX	3	skins	Е	U				
2008	1	Falco hybrid	KW	CZ						1	live	В	С
2008	1	Falco hybrid	KW	CZ		13	live	Т	D				
2008	1	Falco hybrid	KW	CZ						13	live	Т	С
2008	1	Falco hybrid	KW	CZ		1	live	Р	F				
2008	1	Falco hybrid	KW	CZ		1	live	Р	С				
2008	1	Falco hybrid	KW	GB		84	live	Т	С	38	live	Т	С
2008	1	Falco hybrid	KW	GB		1	live	Р	С				
2008	1	Falco hybrid	KW	GB						11	live	Т	D
2008	1	Falco hybrid	KW	ОМ	AT	1	live	Р	С				
2008	1	Falco hybrid	KW	TN	GB	1	live	Р	С				
2008	1	Falco hybrid	KW	US						7	live	Р	С
2008	1	Falco rusticolus	KW	AE		4	live	Т	С				
2008	1	Falco rusticolus	KW	AE	GB	4	live	Р	С	4	live	Р	С
2008	1	Falco rusticolus	KW	AT						1	live	Т	С
2008	1	Falco rusticolus	KW	AT		1	live	Т	D				
2008	1	Falco rusticolus	KW	ВН		2	live	Р	С				
2008	1	Falco rusticolus	KW	DE		4	live	Т	С	4	live	Т	С
2008	1	Falco rusticolus	KW	GB		1	live	Т	С	2	live	Т	С
2008	1	Falco rusticolus	KW	TN		9	live	Р	F				
2008	1	Falco rusticolus	KW	US						2	live	Р	С
2008	2	Falco cherrug	KW	AE	DE	1	live	Р	С	2	live	Р	С
2008	2	Falco cherrug	KW	AE	GB	1	live	Т	С				
2008	2	Falco cherrug	KW	AT		4	live	Т	С	4	live	Т	С
2008	2	Falco cherrug	KW	MN						165	live	Т	W
2008	2	Falco cherrug	KW	MN						20	live	Р	W

## **Appendix III**

All Export of Falcons by the State of Kuwait (2003 – 2008)

**CITES Trade Database** 

### All Export of Falcons by the State of Kuwait (2003 – 2008), CITES Trade Database

Voor	Ann	Tayon	Imn	Evn	Origin	ı	mports report	ed		Ехр	orts rep	orte	d
Year	App.	Taxon	Imp.	Ехр.	Origin	No.	Term	Р	S	No.	Term	Р	S
2003	1	Falco hybrid	US	KW	US	12	live	Т	С				
2003	1	Falco peregrinus	ВН	KW						1	live	Р	W
2003	1	Falco peregrinus	SA	KW						2	live	Р	W
2003	1	Falco peregrinus	SY	KW						2	live	Р	W
2003	2	Falco biarmicus	LY	KW						2	live	Р	W
2003	2	Falco biarmicus	SA	KW						10	live	Р	W
2003	2	Falco cherrug	AE	KW		5	live	S	W				
2003	2	Falco cherrug	ВН	KW						2	live	Р	W
2003	2	Falco cherrug	ВН	KW	XX					2	live	Р	W
2003	2	Falco cherrug	LY	KW						26	live	Р	U
2003	2	Falco cherrug	LY	KW						15	live	Р	W
2003	2	Falco cherrug	QA	KW		1	live	Р	U				
2003	2	Falco cherrug	QA	KW	XX					1	live	Р	U
2003	2	Falco cherrug	SA	KW		2	live	Р	W	59	live	Р	W
2003	2	Falco cherrug	SA	KW		25	live	Т	W				
2003	2	Falco cherrug	SY	KW						5	live	Р	W
2003	2	Falco tinnunculus	US	KW						1	skins	S	W
2003	2	Falco tinnunculus	US	KW		1	specimens	S	W				
2004	1	Falco hybrid	AE	KW		1	live	Р	С				
2004	1	Falco hybrid	AE	KW		17	live	Р	D				
2004	1	Falco peregrinus	ВН	KW						2	live	Р	W
2004	1	Falco peregrinus	JO	KW						18	live	Р	W
2004	2	Falco hybrid	MA	KW						1	live	Р	С
2004	2	Falco biarmicus	SA	KW						1	live	Р	W
2004	2	Falco cherrug	AE	KW						3	live	Р	W
2004	2	Falco cherrug	AE	KW		5	live	N	W				
2004	2	Falco cherrug	ВН	KW						17	live	Р	W
2004	2	Falco cherrug	DZ	KW						30	live	Р	W
2004	2	Falco cherrug	IR	KW						12	live	Р	W
2004	2	Falco cherrug	JO	KW						87	live	Р	W
2004	2	Falco cherrug	LY	KW						32	live	Р	W
2004	2	Falco cherrug	MA	KW						12	live	Р	W
2004	2	Falco cherrug	MR	KW						26	live	Р	W
2004	2	Falco cherrug	PK	KW						12	live	Р	W
2004	2	Falco cherrug	QA	KW						4	live	Р	W
2004	2	Falco cherrug	SA	KW		5	live	Р	W	25	live	Р	W
2004	2	Falco cherrug	SD	KW						1	live	Р	W

Voor	Ann	Tayon	lmn	Evn	Origin	Ir	mports report	ted		Ехр	orts rep	orte	ed .
Year	App.	Taxon	Imp.	Exp.	Origin	No.	Term	Р	S	No.	Term	Р	S
2004	2	Falco cherrug	SY	KW						69	live	Р	W
2004	2	Falco cherrug	TD	KW						8	live	Р	W
2004	2	Falco cherrug	TM	KW						22	live	Р	W
2005	1	Falco hybrid	AE	KW		1	live	Р	F				
2005	1	Falco hybrid	AE	KW		7	live	Р	D				
2005	1	Falco hybrid	AE	KW	GB					1	live	Р	С
2005	1	Falco hybrid	QA	KW	DE					2	live	Р	С
2005	1	Falco hybrid	QA	KW	GB					1	live	Р	С
2005	1	Falco hybrid	QA	KW	US	2	live	Р	F	1	live	Р	F
2005	1	Falco hybrid	SY	KW	DE					8	live	Т	D
2005	2	Falco cherrug	AE	KW						1	live	Р	W
2005	2	Falco cherrug	AE	KW						1	live	Р	F
2005	2	Falco cherrug	ВН	KW						7	live	Р	W
2005	2	Falco cherrug	EG	KW	MN					9	live	Т	W
2005	2	Falco cherrug	IR	KW						2	live	Р	W
2005	2	Falco cherrug	JO	KW						5	live	Р	W
2005	2	Falco cherrug	MR	KW						5	live	Р	W
2005	2	Falco cherrug	PK	KW						7	live	Р	W
2005	2	Falco cherrug	QA	KW						1	live	Р	W
2005	2	Falco cherrug	SD	KW						2	live	Р	W
2005	2	Falco cherrug	SY	KW						23	live	Р	W
2005	2	Falco cherrug	TM	KW						17	live	Р	W
2005	2	Falco cherrug	TN	KW	MN					7	live	Р	W
2006	1	Falco hybrid	AE	KW		2	live	Р	С				
2006	1	Falco hybrid	AE	KW		3	live	Р	D				
2006	1	Falco hybrid	AE	KW	AT					1	live	Р	С
2006	1	Falco hybrid	AE	KW	DE					1	live	Р	D
2006	1	Falco hybrid	AE	KW	GB					2	live	Т	D
2006	1	Falco hybrid	AE	KW	GB					2	live	Т	С
2006	1	Falco hybrid	AT	KW	AT					4	live	Т	С
2006	1	Falco hybrid	AZ	KW	DE					1	live	Р	D
2006	1	Falco hybrid	AZ	KW	GB					1	live	Т	D
2006	1	Falco hybrid	GB	KW						1	live	Т	D
2006	1	Falco hybrid	MR	KW	AT					1	live	Р	С
2006	1	Falco hybrid	MR	KW	GB					1	live	Р	С
2006	1	Falco hybrid	MR	KW	GB					2	live	Р	D
2006	1	Falco hybrid	MR	KW	GB					6	live	Т	D
2006	1	Falco hybrid	QA	KW	DE					6	live	Р	D

Voor	Ann	Tayon	lmn	Evn	Origin	I	mports report	ed		Ехр	orts rep	orte	d
Year	App.	Taxon	Imp.	Exp.	Origin	No.	Term	Р	S	No.	Term	Р	S
2006	1	Falco hybrid	QA	KW	GB	6	live	Т	D	5	live	Т	D
2006	1	Falco hybrid	QA	KW	GB	1	live	Т	С	2	live	Т	С
2006	1	Falco peregrinus	QA	KW	GB	1	live	Т	С	1	live	Т	С
2006	2	Falco cherrug	AE	KW	MN					5	live	Т	W
2006	2	Falco cherrug	AZ	KW	MN					16	live	Р	W
2006	2	Falco cherrug	EG	KW	MN					14	live	Р	W
2006	2	Falco cherrug	MR	KW	MN					21	live	Р	W
2006	2	Falco cherrug	QA	KW	LB	1	live	Р	W				
2006	2	Falco cherrug	QA	KW	LY					1	live	Р	W
2006	2	Falco cherrug	QA	KW	MN					14	live	Р	W
2006	2	Falco cherrug	QA	KW	MN	2	live	Т	W	2	live	Т	W
2006	2	Falco cherrug	SA	KW	MN					32	live	Т	W
2006	2	Falco cherrug	SA	KW	MN	36	live	Р	W	4	live	Р	W
2007	1	Falco hybrid	AE	KW		4	live	Р	С				
2007	1	Falco hybrid	AE	KW	GB					4	live	Р	С
2007	1	Falco hybrid	IR	KW	GB					2	live	Р	O
2007	1	Falco hybrid	MA	KW	XX					1	live	Р	С
2007	1	Falco hybrid	US	KW	US	3	live	Т	F				
2007	1	Falco peregrinus	AE	KW		1	live	Р	F				
2007	1	Falco peregrinus	AE	KW	US					1	live	Р	D
2007	1	Falco peregrinus	AT	KW	US					1	live	Р	D
2007	1	Falco peregrinus	AT	KW	US					1	live	Р	F
2007	1	Falco peregrinus	MR	KW	XX					1	live	Р	W
2007	1	Falco peregrinus	US	KW	US	5	live	Т	F				
2007	1	Falco rusticolus	AE	KW		1	live	Р	С				
2007	1	Falco rusticolus	AE	KW	GB					1	live	Р	С
2007	1	Falco rusticolus	AT	KW	AT	2	live	Р	С	2	live	Р	С
2007	1	Falco rusticolus	MA	KW	XX					2	live	Р	W
2007	2	Falco cherrug	ВН	KW	MN					2	live	Р	W
2007	2	Falco cherrug	IR	KW	AE					3	live	Р	W
2007	2	Falco cherrug	JO	KW	MN					30	live	Р	W
2007	2	Falco cherrug	MA	KW						5	live	Р	W
2007	2	Falco cherrug	MA	KW	XX					17	live	Р	W
2007	2	Falco cherrug	ML	KW	XX					4	live	Р	W
2007	2	Falco cherrug	MR	KW	DE					1	live	Р	С
2007	2	Falco cherrug	MR	KW	US					1	live	Р	С
2007	2	Falco cherrug	MR	KW	XX					19	live	Р	W
2007	2	Falco cherrug	QA	KW	MN					16	live	Р	W

Voor	Ann	Toyon	lmn	Evn	Origin	lı	mports report	ed		Ехр	orts rep	orte	d
Year	App.	Taxon	Imp.	Ехр.	Origin	No.	Term	Р	S	No.	Term	Р	S
2007	2	Falco cherrug	SA	KW	IR					2	live	Р	W
2007	2	Falco cherrug	SA	KW	MN	13	live	Р	W	13	live	Р	W
2007	2	Falco cherrug	SA	KW	SY					1	live	Р	W
2008	1	Falco hybrid	AE	KW	GB					1	live	Т	D
2008	1	Falco hybrid	AE	KW	XX	1	live	Р	С				
2008	1	Falco hybrid	AE	KW	XX					1	live	Р	F
2008	1	Falco hybrid	AT	KW	US	2	live	Р	F	2	live	Р	F
2008	1	Falco hybrid	GB	KW	GB					1	live	Т	С
2008	1	Falco hybrid	IQ	KW	GB					16	live	Р	С
2008	1	Falco hybrid	IQ	KW	GB					31	live	Т	С
2008	1	Falco hybrid	IQ	KW	GB					24	live	Т	D
2008	1	Falco hybrid	IQ	KW	GB					15	live	Р	D
2008	1	Falco hybrid	IR	KW	GB					2	live	Р	С
2008	1	Falco hybrid	IR	KW	XX					48	live	Т	С
2008	1	Falco hybrid	SA	KW	DE					16	live	Т	С
2008	1	Falco hybrid	SA	KW	DE					9	live	Т	D
2008	1	Falco hybrid	SA	KW	GB					6	live	Р	С
2008	1	Falco hybrid	SY	KW	GB					4	live	Р	С
2008	1	Falco hybrid	TN	KW	GB					5	live	Р	С
2008	1	Falco hybrid	TN	KW	GB					5	live	Р	D
2008	1	Falco peregrinus	AT	KW	US	1	live	Р	F	1	live	Р	F
2008	1	Falco peregrinus	TM	KW	XX					2	live	Р	W
2008	1	Falco rusticolus	AE	KW		2	live	Р	С				
2008	1	Falco rusticolus	AE	KW	DE	1	live	Р	С	1	live	Р	С
2008	1	Falco rusticolus	AE	KW	GB	1	live	Р	С				
2008	1	Falco rusticolus	AE	KW	GB					4	live	Т	С
2008	1	Falco rusticolus	AT	KW	AE					2	live	Т	С
2008	1	Falco rusticolus	AT	KW	DE					3	live	Т	С
2008	1	Falco rusticolus	AT	KW	US	1	live	Р	F	9	live	Р	F
2008	1	Falco rusticolus	GB	KW	US					2	live	Т	F
2008	1	Falco rusticolus	SA	KW	DE					1	live	Т	С
2008	1	Falco rusticolus	SA	KW	GB					1	live	Р	С
2008	1	Falco rusticolus	SY	KW	GB					8	live	Р	С
2008	1	Falco rusticolus	TN	KW	GB			Ì		1	live	Р	D
2008	1	Falco rusticolus	TN	KW	GB					1	live	Р	С
2008	2	Falco cherrug	ВН	KW	MN					2	live	Р	W
2008	2	Falco cherrug	IQ	KW	XX					4	live	Р	W
2008	2	Falco cherrug	IR	KW	XX					2	live	Т	W

Year	Ann	Taxon	lmn	Evn	Origin	lı	mports report	ed		Ехр	orts rep	orte	d
Teal	App.	Taxon	Imp.	Ехр.	Origin	No.	Term	Р	S	No.	Term	Р	S
2008	2	Falco cherrug	JO	KW	XX					2	live	Р	W
2008	2	Falco cherrug	LB	KW	MN					1	live	Р	W
2008	2	Falco cherrug	LB	KW	NL					1	live	Р	С
2008	2	Falco cherrug	MA	KW						10	live	Р	W
2008	2	Falco cherrug	MR	KW	XX					17	live	Р	W
2008	2	Falco cherrug	QA	KW	MN	10	live	Р	W	10	live	Р	W
2008	2	Falco cherrug	SA	KW	DE					16	live	Т	С
2008	2	Falco cherrug	SA	KW	MN					11	live	Р	W
2008	2	Falco cherrug	SY	KW						5	live	Р	W
2008	2	Falco cherrug	SY	KW	IR					2	live	Р	W
2008	2	Falco cherrug	SY	KW	NL					2	live	Р	С
2008	2	Falco cherrug	SY	KW	XX					2	live	Р	W
2008	2	Falco cherrug	TM	KW	XX					2	live	Р	W

## **Appendix IV**

Questionnaire for officials responsible for the implementation of CITES

### Questionnaire for officials responsible for the implementation of CITES

Organization:		Position:			
1- Do you know the authorities responsible for the implementation of CITES in the State of Kuwait?					
□ Yes	$\square$ No	$\Box$ I do not know			
If the answer is YES: ment	ion these authorities	s and the role of each:			
2- Are there national laws to State of Kuwait?	for the regulation of	f the trade in falcons in the			
□ Yes	$\square$ No	☐ I do not know			
If YES: Please mention	the laws:				
3- Are there any coordinati of the trade in falcons?	on efforts on the na	tional level for the control			
□ Yes	$\square$ No	☐ I do not know			
If YES: Please mention the coordination efforts.					
4- Are there any coordinati trade in falcons?	on efforts on the re	gional level to control the			
□ Yes	$\square$ No	$\Box$ I do not know			
If YES: Please mention	the coordination et	fforts:			

•	llations currently in force should be replaced with r	-
$\square$ Yes	$\square$ No	□ No opinion
_	re are any on-going studie de and capture of falcons	_
$\square$ Yes	$\square$ No	$\Box$ I do not know
If YES: List the stu- financing th	dies and the agencies whi nem.	ch are conducting and
If No: What are the	obstacles for conducting	such studies?
7- Are there specialize treating falcons?	d hospitals or clinics in th	e State of Kuwait for
□ Yes	$\square$ No	☐ I do not know
If YES: How many of this number suffice	•	)
□ Yes	$\square$ No	☐ I do not know
8- Are there falcon bre	eding centers in Kuwait?	
□ Yes	$\square$ No	☐ I do not know
If YES: Do you kno	ow how many?   Yes	□ No
If YES: Give their 1	number (	)

9- Are there any p falcons in the S	-	ng CITES regarding the trade in
□ Yes	$\square$ No	☐ I do not know
If YES: What i	s the nature of these pro	oblems:
a. Administrative	b. Political c. Legis	lative d. Technical e. Others
10- Do you know Kuwait?	how many falcon trade	rs there are in the State of
□ Yes	$\square$ No	□ I do not know
If YES: mention	n their approximate nun	nber:
11- Is hunting by	falcons considered lega	l in the State of Kuwait?
□ Yes	$\square$ No	☐ I do not know
12- Is the local fall by the concern		f Kuwait effectively controlled
□ Yes	□ No	☐ I do not know
	on the authorities conce e role of each authority	erned with the control of trade (agency)

	tate of Kuwait effective?					
□ Effective	☐ Ineffective	☐ I do not know				
If Effective: How would you rate the degree of effectiveness?						
□ High	☐ Moderate	$\square$ Low				
14- Is there a separate annual budget allocated for implementation of CITES in the State of Kuwait?						
□ Yes	$\square$ No	$\Box$ I do not know				
If YES: Do you kr	now the amount allocated	?				
$\square$ Yes	$\square$ No					
If YES: What is the	e amount?					
15- Is there an independent department for implementation of CITES in the State of Kuwait at the Public Authority for Agriculture Affairs and Fish Resources (PAAF) and its equivalent in other government agencies?						
□ Yes	$\square$ No	☐ I do not know				
16- How many personnel are dedicated by PAAF and other implementing authorities for the implementation of CITES?						
- By PAAF:						
- By other agencies:						

	n, what problems are encoun the implementation of CITE			
18- Do you know a	any cases of falcon smugglin	ng in the State of Kuwait?		
□ Y6	es	$\square$ No		
19- What are the le smuggled falco	gal procedures employed in ons?	case of confiscating		
<del>_</del>	environmental awareness pronsible for implementation of			
$\square$ Yes	$\square$ No	$\square$ I do not know		
If YES: Mention	If YES: Mention these programs:			

# Appendix V

Questionnaire for falconers

### Questionnaire for falconers

## **General Questions:**

1- Do you currently own	falcons?	
□ Yes		$\square$ No
If yes: How many falcor each species.	ns do you currently own?	Give number of
2- Why do you possess fa	alcons?	
☐ As a hobby	☐ For trade	☐ For breeding
3- Do you know the original falcons?	in (breeder or geographica	l area) of your
□ Yes		$\square$ No
If yes: Mention the or	igin.	
4- Do you have CITES p	ermits for your falcons?	
$\square$ Yes		$\square$ No
If yes: Give number of	f falcons with CITES perm	nits.
If no: Give reasons for	not having CITES permit	S.

5- How many falcons do you acquire every year?	
6- How do you acquire your falcons?	
☐ Purchase ☐ Gift ☐ Captured in Kuwait ☐ Captured out	tside Kuwait
If you received falcons as gifts or if you have purchased the receive the required CITES permits with them?	em did you
$\square$ Yes	□ No
If you captured your falcons in Kuwait, Do you know if it capture falcons in Kuwait?	is legal to
□ Yes	$\square$ No
7- If you have purchased falcons, from where did you purcha	se them?
☐ From the local Kuwaiti market ☐ From outside	of Kuwait
If purchased outside of Kuwait, from which country/count	tries?
☐ The neighboring (Gulf) countries. Please list them.	
☐ Other countries. Please list them.	
8- Do you face any problems when importing falcons into the Kuwait?	e State of
□ Yes	□ No
If yes: What problems or difficulties do you encounter?	

12- Do you provide health care	for your falcons?
□ Yes	$\square$ No
If yes: Where is the care or	reatment provided?
13- What falcon species do you	prefer for hunting or trading?
$\Box$ Gyr falcon $\Box$ Saker falcon $\Box$	Peregrine falcon □Other types (please mention)
14- Do you prefer the wild falco	ons or those bred in captivity (hybrids)?
☐ Wild falcons	☐ Bred in captivity (hybrid)
Please state your reasons?	
15- Which countries do you pre	fer the most for hunting?
16- In your opinion, the procedu countries in which you hunt	are:
☐ Uncomplicated and fast	☐ Complicated and slow ☐ Not permitted
17- Do you know if there are up the State of Kuwait?	date statistics for the number of falcons in
□ Yes	$\Box$ No
18- Do you know how many fal	coners reside in Kuwait?
□ Yes	$\square$ No
If ves: Please give the number	per or an estimated number ( )

19- Is there a u	nion or association for	falconers in Kuwait?	
	Yes	$\square$ No	☐ I don't know
Kuwa	_	ations there are in the so you receive from thes	
Questions con	cerning CITES:		
	niliar with CITES (Co Species of Wild Faur	onvention on Internationa and Flora)?	nal Trade in
[	Yes		$\square$ No
If yes: How	v much do you know a	about it?	
☐ I have goo	d knowledge □ I have	e moderate knowledge	☐ I have little knowledge
	_	agency (or agencies) i in the State of Kuwait	•
[	Yes		$\square$ No
If yes: Na	me it (or them):		
~	ITES permits (obtaini	procedures which are r ng falcon passport, exp	-
]	Yes		□ No
If yes: Plea	se list these procedure	S:	

23- Do you have passports for your falcons	s?
$\square$ Yes	$\square$ No
If yes: How many passports do you have	ve? ( )
24- In your opinion, are the procedures for CITES permits:	obtaining falcon passports and
☐ Uncomplicated and fast ☐ Uncomplicated	ed but slow  Complicated, difficult and slow
If complicated, difficult and slow, what	are the difficulties?
In your opinion, how can the procedure	s be improved?
25- Do you think the falcon passport is effactors borders?	ective in falcon movements
□ Yes	□ No
26- Does the responsible agency for CITE Kuwait, provide sufficient and useful	*
□ Yes	$\square$ No

27- What do you think abo State of Kuwait for in	1 1	cedures applied in the
$\square$ Easy and fast	☐ Difficult	☐ Complicated
28- Do you have any sugg	,	sible agency in order to of falcon much easier?
□ Yes		$\square$ No
If ves: Please mention	vour suggestions:	



### UNIVERSIDAD INTERNACIONAL DE ANDALUCÍA

Sede Antonio Machado, Baeza (Jaén) - Spain

2008-2010 BIENNIUM

IX. ON CAMPUS PROGRAM

### On-campus period: from 14th April to 26th June, 2009

### Main Themes Discussed In the Masters/PhD. Program:

### **Section 1**: Biodiversity as a paradigm

- 1. Methodological issues in preparing scientific studies.
- 2. Publication, documentation, data analysis, presentation of results and reports.
- 3. The economics of natural resources.
- 4. The dichotomy of economics and environment.
- 5. Legal aspects of multilateral environmental conventions.
- 6. Biodiversity: concept, levels, agro-biodiversity.
- 7. Assessment of environmental services.
- 8. The limits of our knowledge of biodiversity.
- 9. Use of and access to biodiversity.
- 10. The geographic dimension of biodiversity.
- 11. Assessment of biodiversity.
- 12. Trade in species and the loss of biodiversity; the concept of Significant Trade and Non Detrimental findings.
- 13. Global change.

### Section 2: Management of animals and CITES

- 1. Use of genetic tools for conservation of animal species.
- 2. Demography and its use in conservation.
- 3. Community ecology and its use in conservation.
- 4. Management and use of biodiversity for conservation.
- 5. The basis for threatened spices lists.
- 6. Censuses and monitoring.
- 7. The historic context of extinction; how to understand contemporary extinction.
- 8. Alternatives for recovery of threaded species.
- 9. Recovery plans for animal species.
- 10. Animal diversity in figures and how it is distributed.
- 11. Biogeography.

- 12. Vertebrates: threatened spices, IUCN Red List categories and criteria.
  - economic and socio-cultural values.
  - case study: biology of amphibians and reasons for their decline.
- 13. Sustainable development.
- 14. Historical evolution of the biological criteria for listing species on the CITES Appendices.
- 15. Applying the criteria: case studies.

### **Section 3**: Ex situ Techniques and Plant Diversity

- 1. **DNA**: molecular structure and characteristic; extraction methods.
- 2. The basics of PCR.
- 3. Dominant markers:

RAPDs, ISSRS, AFLPs and PCR-RFLPs; Data analysis and interpretation.

#### 4. Co-dominant markers:

SSR, SNPs and sequential; Data analysis and interpretation

- 5. How to choose a molecular marker: examples, application.
- 6. In vitro culture techniques; in vitro conservation.
- 7. Cryopreservation: pros and cons.
- 8. Pollen and DNA banks.
- 9. The basics of propagated conservation and storage seed bank: design of the facilities; safety and resources training.
- 10. Seed morphology; seed physiology: germination, dormancy; viability-concept and estimation models.
- 11. Soil seed banks: methods for calculating models.
- 12. Techniques to control and monitor humidity and temperature CO<sub>2</sub> sequestration.
- 13. Natural Areas: EU Conservation Policy.
- 14. Ex situ conservation perspective: setting priorities; networking; gene bank management.
- 15. Collecting (manuals) record keeping and databases; managing stocks.
- 16. Applications of integrated techniques, Recovery Plants, GIS in seed bank management.

### **Section 4**: Management of plant and CITES

- 1. Overview of conservation biology.
- 2. Population ecology: Introduction.
- 3. Measuring diversity at the population level:
  - I Population dynamics and structure.
  - II Reproductive biology.
  - III Pollinators.
- 4. Population viability analysis, Population dynamics and fluctuation models.
- 5. Conservation and management of populations.
- 6. Measuring diversity at the ecological system level.
- 7. The intangible component of biodiversity in space.
- 8. The intangible component of biodiversity in time.
- 9. Practical exercises on measuring diversity.
- 10. Introduction to cartography and referencing system.
- 11. Remote sensors as a source of information.
- 12. Visual and digital analysis of images.
- 13. Spatial analysis and biodiversity.
- 14. Geographic information systems; territory and geographic analysis.
- 15. Data Sources; Spatial Data Infrastructures.
- 16. Global positioning system: use and precision adjustments.
- 17. Evaluation of the status of *Prunus africana* populations on Bioko Island (Equatorial Guinea) applied to sustainable management of bark harvest.
- 18. Regional analysis of the status for making non-detriment findings.
- 19. Applications of GIS management and conservation of forest genetic resources.

### **Group or Individual Exercises Participation**

- Individual exercise on the Cartagena Protocol.
- Individual exercise on the economics of natural resources.
- Individual temperature and humidity exercise.
- Group exercise on the Non-detriment findings, for the falcons by using the guidelines preparing by the IUCN to assist the parties in making Non-detriment findings.
- Group exercise on the significant trade of certain species listed in CITES Appendices. I
  joined the analysis of *Falco Cherrug* (Saker Falcon) and *taxus walliichiana*(HimalayanYew).

- Individual exercise on Biodiversity (Birds of Kuwait).
- Individual exercise on Applying Demography, exercise on parrots and palms: estimating the vital statistics of population to determine best management strategies and sustainable harvest level.
- Group exercise on Debate on a single large or several small (SLOSS) reserves.
- Individual exercise on viability of seeds.
- Individual exercise on management plan for the two existing population of *Erodium* paularense in the Autonomous Community of Madrid.
- Group exercise on Traditional Knowledge Geographical Information System (GIS).