

Saker Falcon *Falco cherrug* in the Kingdom of Saudi Arabia: Status and Conservation from the Kingdom Prospective



Saudi Wildlife Authority

Presented by

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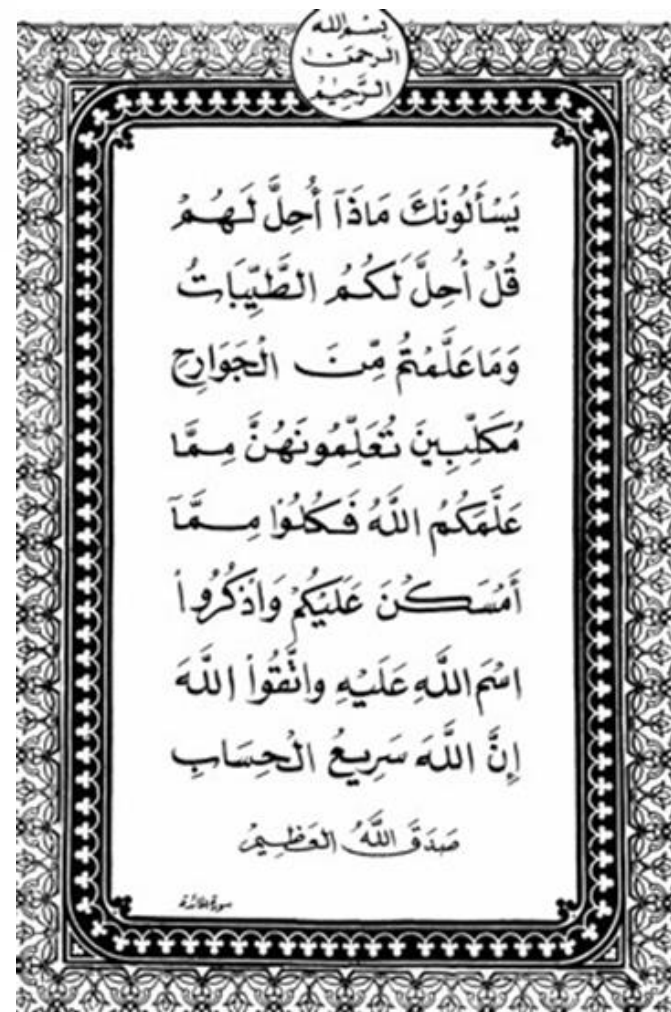
- The important of Saker Flacon for Saudi Arabia.
- Status of Saker Falcon in Saudi Arabia
 - Case Study from Saudi Arabia
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In the Name of Allah, the Compassionate, the Merciful

They ask you what is lawful to them. Say: "All good things are lawful to you, as well as that which you have taught the birds and beasts of prey to catch, training them as Allah has taught you. Eat of what they catch for you, pronouncing upon it the name of Allah. And have fear of Allah: swift is Allah's reckoning."

- The Holy Koran includes a falconry-related verse that permits falconry as a hunting method.
- Falconry appeared with the emergence of civilizations and was already popular in the Middle East and Arabian Gulf region several millennia BC. In the Al Rafidein region (Iraq) it was widely practiced 3500 years BC; in 2000 BC the Gilgamesh Epic clearly referred to hunting by birds of prey in Iraq.



Saker Falcon in the Arab Culture

- According to the Al As'ma'e (973) & Aldumari (773); Al Hareth bin Mu'aweyah Al Ken'de was the first used Saker Falcon in the Arabia, nearly before 2500-2800 year ago.
- The Arab Falconers like the Saker Falcon as they see and feel the glory, courage, strength, highness and coarse behavior to adapts to the harsh environment of the desert.
- The Arab poets composed a lot of poems lauding the falcon
- Falconry is practiced now by all classes and bequeathed it to the next generations.
- Since loge time Arab falconers practice trapping the falcon before hunting season and release it after the hunting season, however this practice is not any more used with the Saker Falcon.



Part of the falconry tradition to release the female (this practice still carried out unite now “release of female of Barbary Falcon”)



- Decision 7.COM 11.33 of the UNESCO decides that [this element] satisfies the criteria for inscription on the Representative List of the Intangible Cultural Heritage of Humanity, as follows:

- R.1: Falconry, recognized by its community members as part of their cultural heritage, is a social tradition respecting nature and the environment, passed on from generation to generation, and providing them a sense of belonging, continuity and identity;
- R.2: Its inscription on an extended basis on the Representative List could contribute to fostering cultural diversity and intercultural dialogue worldwide, thus enhancing visibility and awareness of intangible cultural heritage and its importance;
- R.3: Efforts already underway in many countries to safeguard falconry and ensure its transmission, focusing especially on apprenticeship, handicrafts and conservation of falcon species, are supplemented by planned measures to strengthen its viability and raise awareness both at national and international levels;
- R.4: Communities, associations and individuals concerned have participated in the elaboration of this nomination at all stages and have provided plentiful evidence of their free, prior and informed consent;
- R.5: Falconry is included on inventories of intangible cultural heritage in each of the submitting States;
- Inscribes Falconry, a living human heritage on the Representative List of the Intangible Cultural Heritage of Humanity.



Legal Protection

International & Regional Conservation Agreements signed by Saudi Arabia

International							Regional		
CBD	CITES	CMS	Ramsar	AEWA	Birds Of Prey and Owl (MoU)	Climate Change (CC)	Jeddah Agreement (PERSGA)	ROBME	GCC Wildlife Agreement
✓	✓	✓				✓	✓	✓	✓

Convention on Biological Diversity

- Article 1: Support the conservation of the biodiversity & sustainable utilization .
- Article 6: Develop and implement National Strategy and action plan.
- Article 8: Establish Protected areas & the right of local communities on benefit from natural resources.
- Article 9: Protection through captive breeding and genetic bank.
- Article 10: Sustainable use and support the traditional use of natural resources in a sustainable way.
- CBD 2004: Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity.
 - Resolution Conf. 13.2 (Rev. CoP14): Sustainable use of biodiversity: Addis Ababa Principles and Guidelines

Convention on Biological Diversity

- Royal Decree no M/6 date 15/2/1422H (2001) Approve Joining the Convention.
- National Biodiversity Strategy (NBS) has approved 2008 with the Royal decree 197 dated (11/07/1429H “2008”), which also instruct all government agencies involved to put the budget they need to implement the NBS (Article 6 of the convention)
- In May 2012 a stakeholder workshop was carried out to discuss the NBS and responsibility to implement Aichi Biodiversity Targets (2020) with all government departments.
- The NBS has mainstreamed the conservation of the Saker Falcon through the following objectives
 - ❖ Objective 2 Conserve the Biodiversity (*insitu*) in the natural areas outside the protected areas (Control the hunting laws & Trade)
 - ❖ Objective 3: Conserve the Biodiversity (*exsitu*) (Protection of the genetic diversity by establish and expansion of gene bank).
 - ❖ Objective 11: Encourage and support the Scientific Research.
 - ❖ Objective 12: Encourage the environmental Awareness and Education.
 - ❖ Objective 13: Implement the socio-economic planning (Sustainable use)
 - ❖ Objective 15: Encourage the regional and international cooperation on the biodiversity protection
 - ❖ Objective 16: Encourage the investment in the natural resources (captive breeding).



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

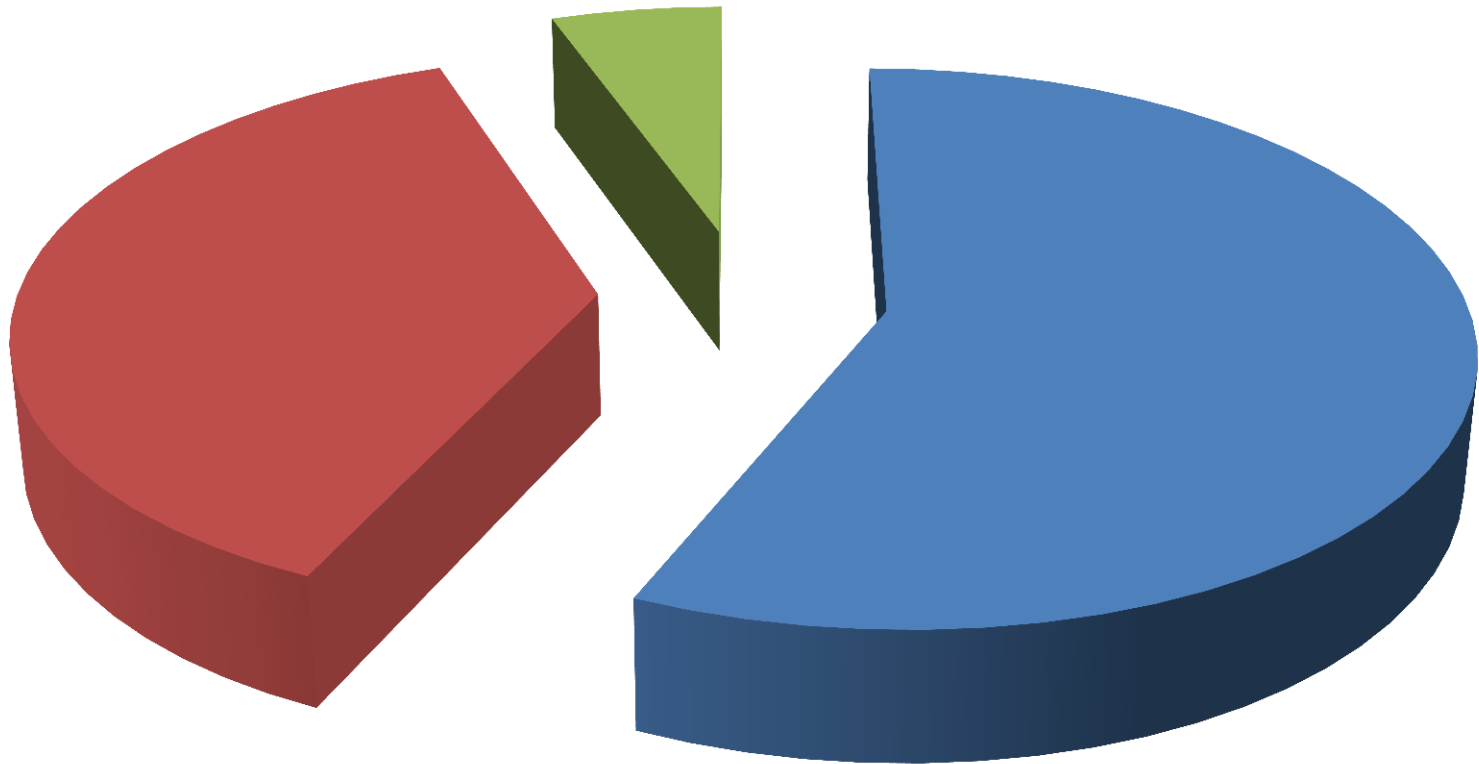
- By law there was a trade system regulate the trade in the wildlife animals and products 10 years before the Kingdom sign the cites agreement
- The royal decree approved signing the agreement in 1996, and the same year the kingdom became a member of the agreement
- The number of staff in the department increase from one in 1996 to 21 employee in 2013 (eight at the Office and 12 in the main entrance around the kingdom).
- Royal decree no. (M/9 in 2001) on the low of trade in wild animals and their products
- Royal approval no. (149/49) in 2004 which have the definition, responsibility, permits, requirement for captive animals and steps for implementing the low and Amendment by low (no. 173/73) in 2008.
- Training and Awareness programs for staff and implementing agencies (Nationally and Regionally; Produce CD, Brochures and regular advertisement in local newspaper)
- The species listed in the category 1 of the National legislation.
- The Report of CITES secretariat (SC58 Doc. 23) to the standing committee after visiting Saudi Arabia (note 19-23, Page 3.)



Weakness

- Lack of efficient cooperation between national, regional and International organizations implementing the agreement.
- No Customs Coding (HS code) for animals products nationally and international.
- Capacity
 - Not enough trained staff to cover all the country entrance
 - Lack of available manual.
- Lack of availability of quarantine or Specialized Rescue center
- Not enough awareness programs

The Percentage of the status of Saker Falcon in the countries export/re-export to Saudi Arabia from 2003-2012).



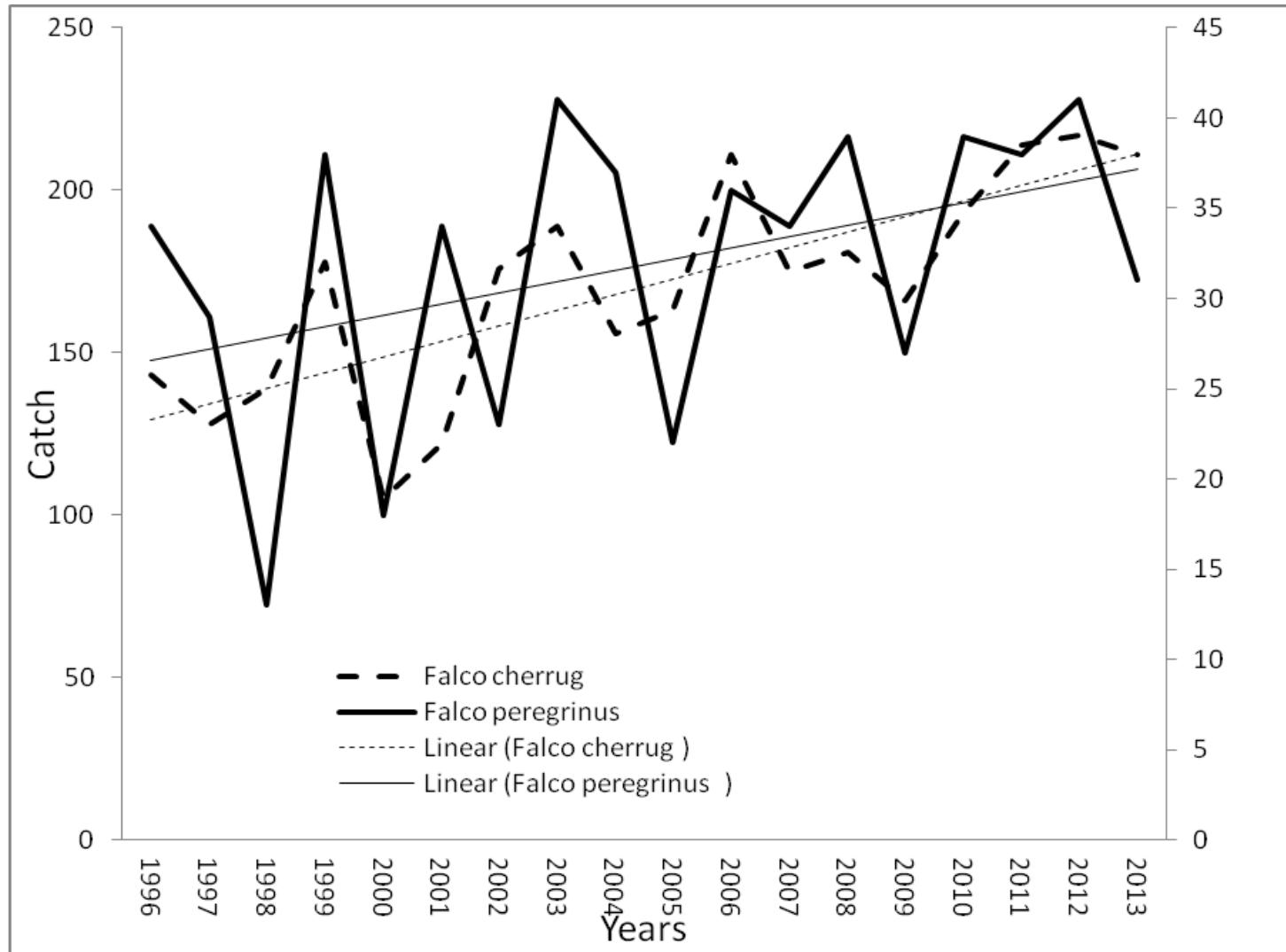
■ Wintering and Passing migrants ■ Breeding ■ Out of the distribution range

Convention of the migratory species (CMS)

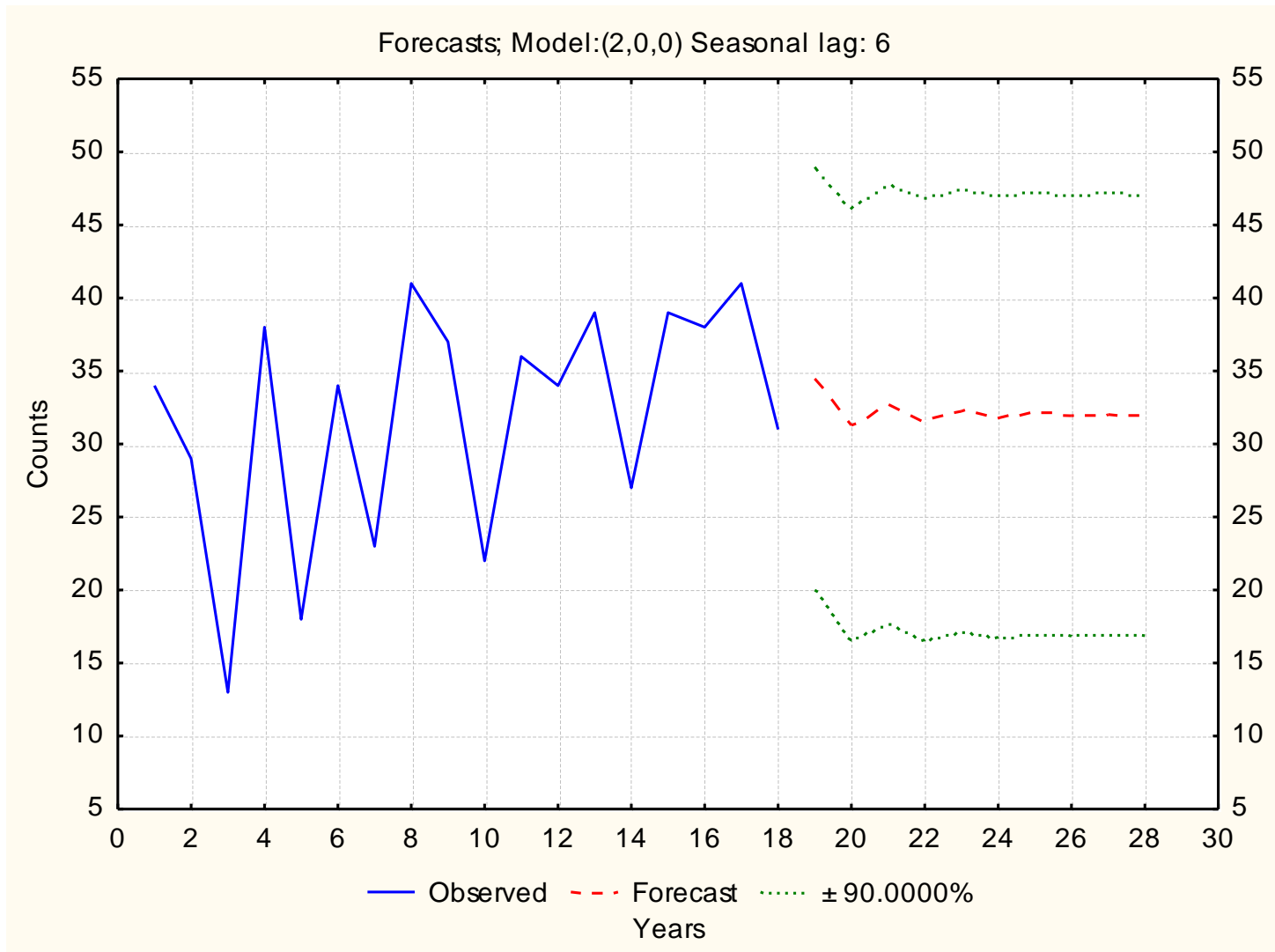
- Saudi Arabia sign the agreement in 1990
- Saudi Wildlife Authority worked with CMS secretariat, BirdLife International, IUCN and to implement Resolution no. 9/20 through participate in the workshop in Abu Dhabi (2009) and contracted the BirdLife to Evaluate the status of the Saker Falcon
- Saudi Arabia participate financially and providing all information available to support the Saker Falcon Taskforce which established during the COP 10 under resolution no. 10/28.
- Saudi Arabia support the mission of the Saker Falcon Taskforce to develop the Saker Falcon Global Action plan, and funded the stakeholder meeting with 60,000 US\$



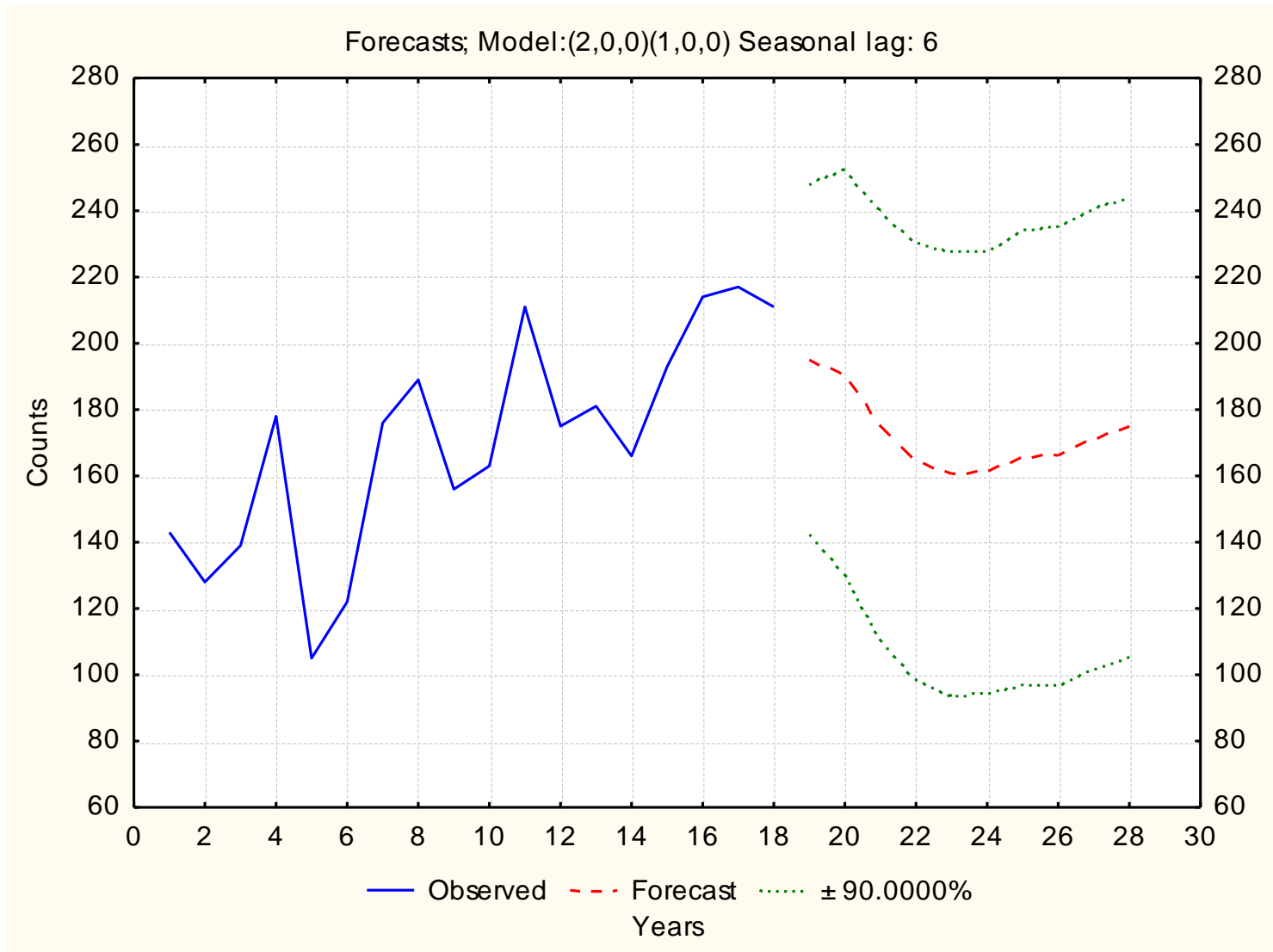
Falco peregrinus and *Falco cherrug* trapped from Saudi Arabia in the periods between 1996 and 2013 (recoded by Mohammed Al Khathlan).



Forecasting of trapped *Falco cherrug* in the next ten years using Time Series Analysis (ARIMA model) based on the period between 1996-2013.



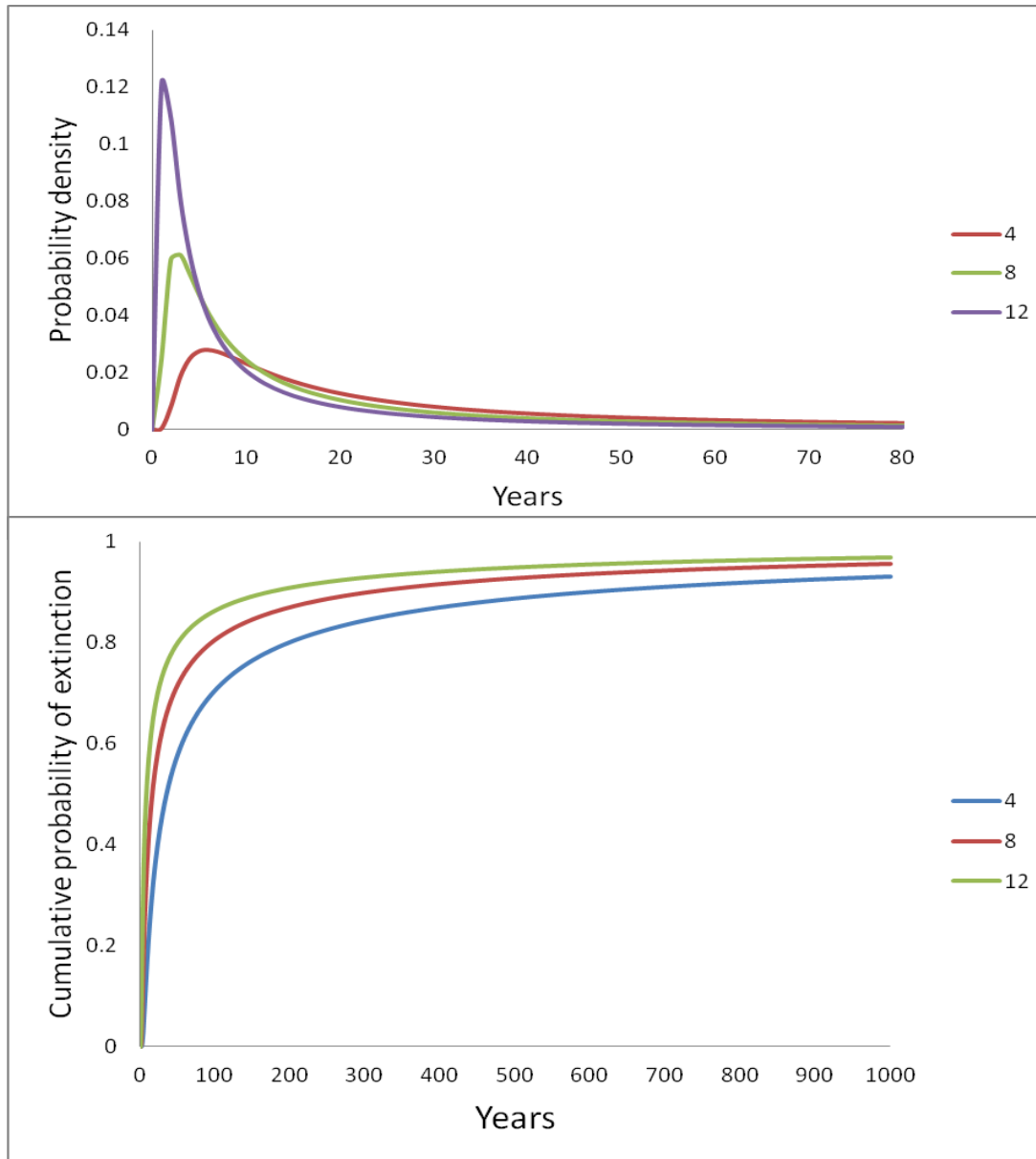
Forecasting of trapped *Falco peregrinus* in the next ten years using Time Series Analysis (ARIMA model) based on the period between 1996-2013.



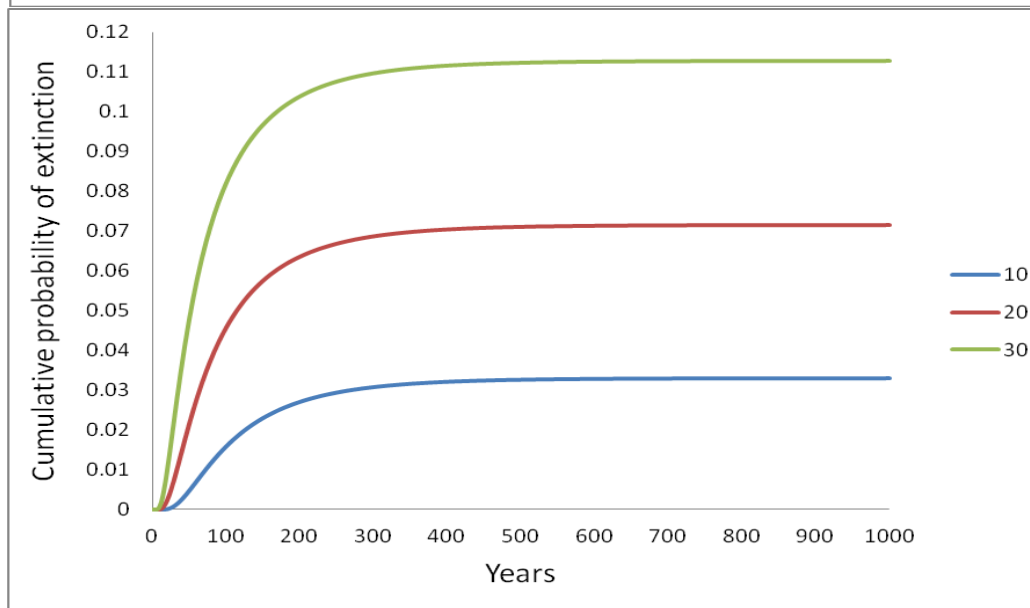
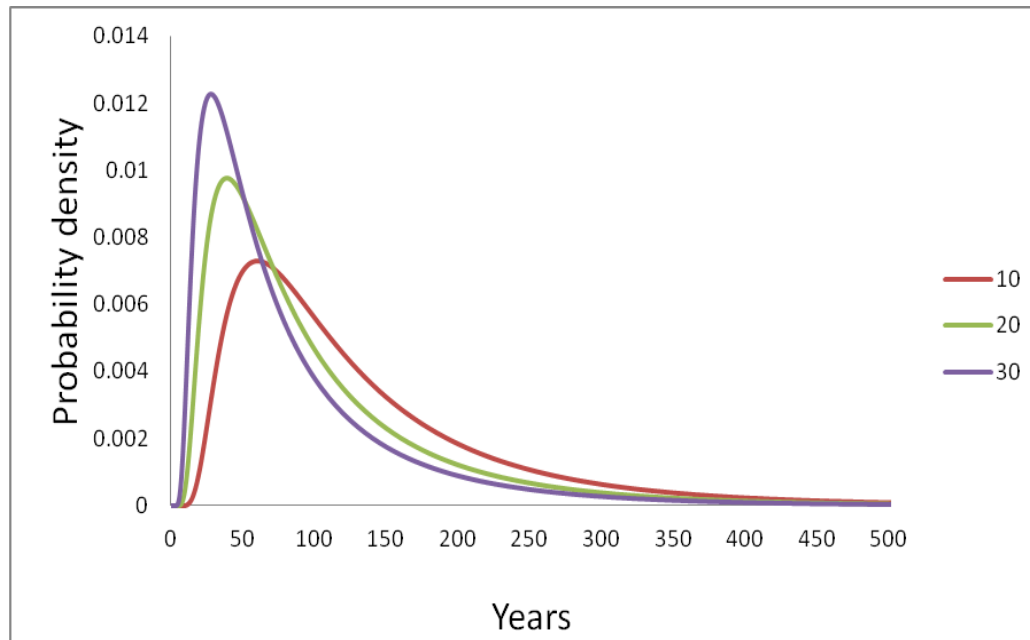
Viable population parameters based on 1996-2013 trapped of *Falco cherrug* and *Falco peregrinus* from Saudi Arabia.

	<i>Falco cherrug</i>			<i>Falco peregrinus</i>		
"Initial" population size (captured)	31.00	31.00	31.00	211.00	211.00	211.00
Extinction threshold	4.00	8.00	12.00	10.00	20.00	30.00
Mean time to extinct. Threshold theta^:	376.85	249.28	174.66	133.25	102.96	85.24
Lower 95% confidence limit for theta^:	0.00	0.00	0.00	0.00	0.00	0.00
Upper 95% confidence limit for theta^:	16548.61	10946.88	7670.08	693.02	535.49	443.34
Modal time to extinct. threshold	5.81	2.54	1.25	60.28	38.82	27.73
Probability of extinction in next 20 years:	0.36696	0.55335	0.67945	0.00012	0.00221	0.00944

Probability of density (above) and Cumulative probability of extinction (below) of *Falco cherrug* based on no. of trapped Saker falcon between 1996-2013 on threshold of 4, 8 and 12 individuals (using “Dennis et al. (1991) methods”).



probability density (above) and Cumulative probability of extinction (below) of *Falco peregrinus* in the next 1000 years based on data of trapped falcon between 1996-2013 on threshold of 10, 20 and 30 individuals (using “Dennis et al. (1991) methods”).



Attributes, experiences and value placed on Saker Falcons for the first 37 falconers and falconer/trappers surveyed in Saudi Arabia in 2013 (Kenward et al. 2013)

	Region	Age	Why do you practice the sport of falconry ?	How many years have you practiced the sport of falconry?	How many falcons do you have now?	And from which species are they?	If none, why?
Mean/ reply %		48.8		29% 10-20 years	2.3	52% of 61 are saker	27% (10) not active
Median/ majority	78% Hail	49.0	100% Hobby	54% more than 20 years	2.0	8% are hybrid	Shortage of quarry (Houbara, Stone Curlew and Arabian Hare)
How do you mark your falcon?	In the last 10 years, how many wild falcon have you had with CITES?	What is the longest period which a falcon has stayed with you?	From which species is it?	What happened to it?	Sort falcon species according to your preference	How many Saudi Riyals do you expect to pay for a wild Saker now?	How many falcons have you trapped (captured) by yourself in the last 10 years?
100% marked 96% ring +micro-chip	100% reply 10% had CITES	5.3 years 4.0 years	100% reply 91% Saker	16% died 66% sold	100% reply 91% Saker first choice	US\$8313 US\$7500	18% of falconers also trap Saker was 38/100 falcons trapped

Opinions of the first 37 falconers and falconer/trappers surveyed in Saudi Arabia in 2013, of which 100% replied to these questions (Kenward *et al.* 2013)

Question	% who agreed
Do you think that the number of falconers increased or decreased in the last 10 years? Increase	100%
There are many falcons' trappers which decreases the number of falcons	91%
Maintaining a falcon in the captivity for a long time leads to decrease the number of falcons	48%
Increasing the price of falcons which leads trappers to seek them more to gain more of money	75%
There should be an Identification Card issued by the Wildlife Authority for the falconers that allows them to possess a falcon	81%
There should be an Identification Card for the falcons which allows that falconer to use it for hunting	86%
The price of the falcon should be set according to its species	37%
Setting a specified period for keeping a falcon	45%
Establishing breeding centres for falcons	94%
Establishing veterinary hospitals for falcons in the areas with high abundance of falconers	100%
Establishing falconers clubs in the areas with high abundance of falconers	94%
New regulations are making it harder to have wild Sakers	0%

Threats Effect the Saker Falcon within Saudi Arabia

Threats	Importance	Notes
Threats causing habitat loss – Decreased quality of foraging areas		
2.3. Overgrazing	Medium to High	This factor has known to be one of the factors affecting the biodiversity in the Kingdom, therefore this probably affecting the prey species available for the species during migration
2.6. Infrastructure development	Medium to High	There are increase in the level of development along the coastal areas, especially energy plantation which probably have an effect in the feature
Threats causing increased human-induced mortality		
2.9. Unsustainable trapping of wild Saker Falcons	Low to Medium	The internal trapping for trade within Saudi Arabia, which is probably mainly of Sakers from north-central Asia, has continued at a level of 25–40 falcons annually for the last two decades without apparent change in effort (Kenward et al. 2013). Mark-recapture techniques have estimated an off-take of 8–20% of juveniles (Kenward et al. 2001), which lie within sustainable yield estimates for those populations (Kenward et al. 2013) and supports contentions that birds from those areas have not experienced marked declines.

Threats Effect the Saker Falcon within Saudi Arabia

Threats	Importance	Notes
2.10. Unsustainable trade of wild Sakers	High	especially the illegal trade "birds smuggled to or out the county"
2. 11 Electrocuton on medium-voltage electric lines	Low	Probably could have high in the feature with the increase of electric power stations along the migration route (need to include the conservation of migratory in Environmental Impact Assessment "EIA")
2.14. Collision with man-made structures	Low	-do-
Threats potentially causing increased natural mortality		
2. 20 Extreme weather	Low	Sand storm and rain could have an effect on the forgoing
2.21. Genetic introgression	High	there is increase of hybrid falcon used by falconers especially in the GCC countries



Falconers
(largely
Arab
falconers)

Falcon
breeding
Centers for
Trade

End Users
of Wild
Saker
Falcons



- Majority of breeding Centers get their birds from the wild, which also consider end users for the wild Saker falcon.
- Illegal Take of Eggs and chicks of wild saker falcon from the nest has high effect in the wild saker population. Therefore, its importance to implement stronger measures to stop these illegal activity.
- Although the establishment of centers for captive breeding of falcons is important, but recently they start to increase their production of hybrid, which probably have an effect in the wild population.
- We recommend that these centers need to be under control and they have to take responsibility to support the wild population with pure falcon under IUCN guide line of reintroduction.

The Saker Falcon Global Action

- The success of the Saker Falcon Global Action and Management Plan will be dependent upon three key elements
 - ❖ The degree of engagement by the Range States of the species;
 - ❖ The level of trust and credibility that is established and maintained among key stakeholders,
 - ❖ The level of funding support that can be secured to implement the SakerGAP
- The successful implementation of the SakerGAP will need
 - ❖ Extensive awareness raising
 - ❖ Widest engagement of stakeholders
 - ❖ Build mutual trust with cooperative environment for adaptive management of the species and its habitats.
 - ❖ Patience from international community to give time to SakerGAP to work.

Conclusion

- There is a serious concern regarding the conservation status of the Saker Falcon due to significant declines in the population of this species through part of its range. Therefore, Saudi Wildlife Authority is supporting the development of the Saker Falcon global action plan
- The issue of sustainable use should be a central element to the future conservation and management of the Saker Falcon. This elements was recognized by most of the agreements especially the Convention on Biological Diversity and CITES.
- Engagement of the stakeholder among the Range States of the species with trust, credibility, transparency, longanimity and provide the necessary financial support are important elements to the success of the Saker Falcon global action plan based in sustainable use.

Thank you....keeping me wild

