Falconry & Conservation in southern Africa



Conservation opportunities for Falconers

- Rehabilitation
- Reducing persecution
- Captive propagation
- Raptor monitoring
- Policy & Advocacy





Can we meet with you and your team to discuss Raptors- everything about raptors (distribution, populations, trends, challenges, threats, management plans etc etc.) maybe on 27 June at Zimparks HQ... you can prepare a presentation on raptors addressing the above.

Regards;

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9:30 am

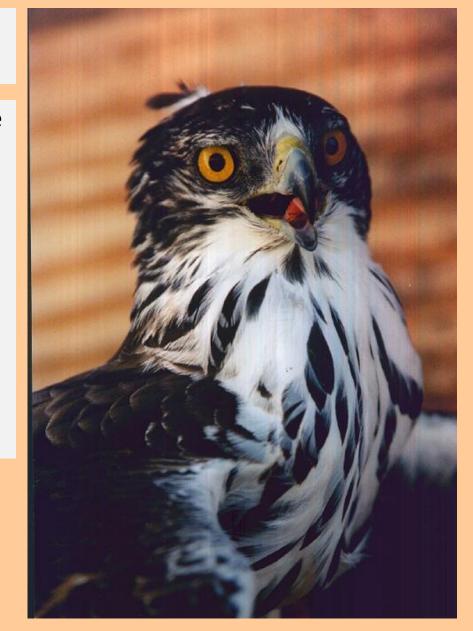
Raptor Rehabilitation

- Where most falconers start
- Causes of raptor injury: collisions, electrocution, persecution, poisoning, nest site disturbance, natural disease.
- Exposure to a variety of nocturnal & diurnal species e.g. over 10 years 19 species, 52 individuals just from Harare. Total species.
- Insight into species characters.
- While compelled to 'fix' raptors injured through anthropogenic cause, conservation value negligible. Except....!
- Endangered species.... legislation?
- Potentially a source of stock for captive breeding programs.
- Rehabilitation can be a "smoke screen" for unjustified removal of raptors from the wild.



Reducing Persecution

- Free range fowl and pigeons are more valued and better protected than Endangered species!
- Pigeon fanciers' account for an unknown number of raptors – Ayres' Hawk Eagle, Peregrines, Lanners, Black Sparrowhawks.
- Trapping and relocation of 'problem' birds is potentially a solution.
- Changing superstitions (owls & nesting eagles).



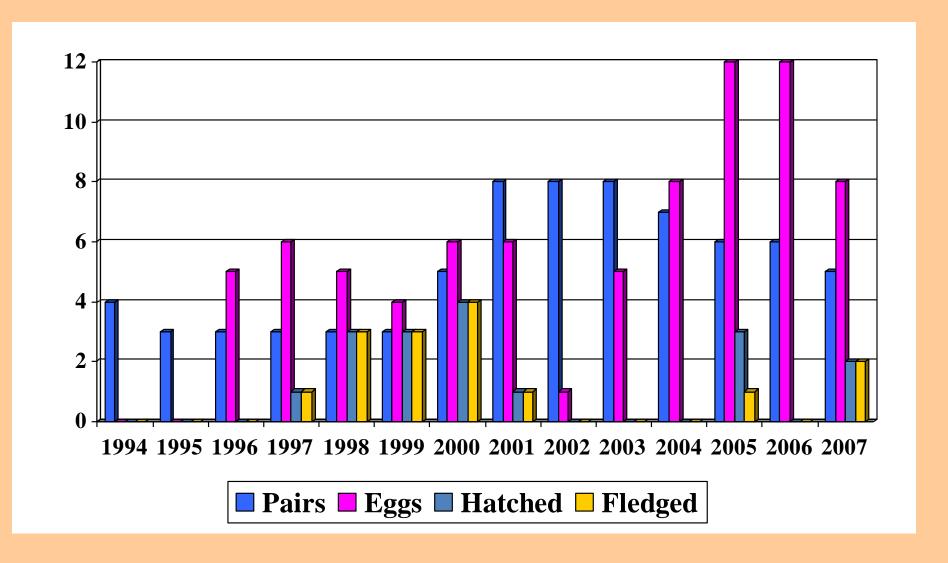
Captive Propagation

- Famously used to promote Peregrine Falcon population recovery following decline caused by DDT.
- Has application where source of decline can be removed e.g. environmental contaminants, however less effective when there is habitat loss.
- At best a last resort to save species from complete extinction.
- There is merit in understanding species' requirements for captive propagation
- Misused as mitigation for reducing environmental impact (Batoka Gorge).
- Independence from wild 'take'.
- Potentially another 'smoke screen' to hide illegal capture.





Z.F.C. Taita Falcon captive breeding program



Taita Captive Breeding Summary

- Productivity very low
- 1.63 Eggs / pair / year
- 0.35 Young / pair / year
- Onset of breeding at 3-4 years senescence at 14 years.
- Taita Falcons do not usually recycle or extend, and all attempts to recycle failed.
- Egg weight ± 7% body weight,
 Peregrine ± 5% body weight.
- Poor parents with intervention required for rearing.
- Highly intensity management & husbandry
- Captive breeding for restoration of species not viable





Raptor Monitoring

- ZFC policy to record any nest sites of Protected species used for falconry, and any nest site where a hawk was taken from the wild for use in falconry.
- To prevent over-exploitation of well known nest sites, and to ensure genetic diversity of captive population.
- Monitoring effect of DDT on Peregrine Falcon,
 African Goshawk in the Zambezi Valley.
 Dieldrin on Black Sparrowhawk.
- Raptor community studies Falcon College,
 Save Valley Conservancy, Malilangwe, Triangle
 Sugar Estates and more recently Umfurudzi.
- Crowned Eagle in Zimbabwe.
- Peregrine & Lanner Falcons in Harare,
 Montague's Harrier etc Honeyguide .
- Zimbabwe's Taita Falcon population, with emphasis on Batoka Gorge.
- Cliff-dwelling raptors and Black Stork populations in Batoka Gorge.





Batoka Gorge: Background

- Complex of river gorges below Victoria Falls, derived progressive erosion of fault lines in Basalt.
- Batoka over 70 km long, with the upper gorges offering unique habitat for cliff-dwelling raptors. Cliff height up to 100m.
- Site of most studied population of Taita Falcons, with first published record 1957.
- At one time supported an estimated 8 pairs and six active nest sites.
- Upper 30km has the majority of Taita nest sites, and supports significant populations of other cliffdwelling raptors.
- Batoka Gorge is threatened by construction of a hydropower project that will result in substantial flooding of this unique complex of gorges.
- Batoka Gorge is a World Heritage Site, RAMSAR site and IBA.
- Objection to the project from environmentalists and tourist operators, and deficiencies in the ESIA, has resulted in a protracted fight against construction.
- ZFC monitoring data, especially of Taita Falcon breeding, has been key to supporting these objections.









Taita Falcon: Biology

- A very small, stocky falcon.
- Body length: 25-28cm,
 Weight: 225 340g.
- DNA analysis shows it to be an evolved Peregrine.
- Nests only on cliffs, using a scrape in a natural crevice e.g. a pothole, ledge
- Breeds once a year and lays a maximum of four eggs/season.
- Preys almost exclusively on small birds, e.g. quelea, swifts, martins.







Distribution & Population

- Large range, but very fragmented.
- From Taita Hills in the north, to Blyde River Canyon in South Africa.
- Global population estimated at 300 – 500 pairs.
- In Zimbabwe, estimated
 50 60 pairs (Irwin, 1981;
 Hartley, 1995).
- Zimbabwe was considered a stronghold for the species.
- Hartley in 2000 records 23 nest sites.



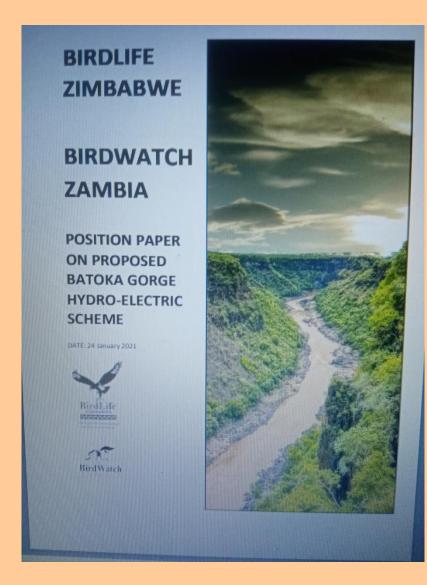


Batoka Gorge Raptor Monitoring

- 1990 1994. Annual survey of Batoka Gorge (Hartley, Grobler et al.) confirms 6 active breeding pairs.
- 2001. 1 adult seen. Surveyed 55km, 30km on foot & 25km by raft in August. No birds seen. First record of Lanner Falcon nesting in Batoka Gorge - Hartley & Deacon.
- 2002. 1st 25km surveyed in August. 1 bird seen Hartley
- 2003. 1st 25km surveyed in January. No birds seen. Hartley
- 2004. Surveyed 55km, 30km on foot & 25km by raft in December. Suspected sighting of a bird in the lower section – Grobler et al.
- 2005. 12km of Batoka Gorge surveyed. No birds seen. 2
 pairs Lanners active Middleton & Middleton.
- 2006. 12 km surveyed. 1 pair active near Gorges Lodge.
 Middleton (ZFC) and Tiran (BLZ).
- 2013/2014: BLSA/BLZ surveys of Batoka Gorge
- 2018: Survey upper 27 km of Batoka Zambezi River Authority, Zambia & Zim Wildlife management
- 2021: (Nov.): Survey of Batoka Gorge to 100 km downstream of Victoria Falls (ZRA)

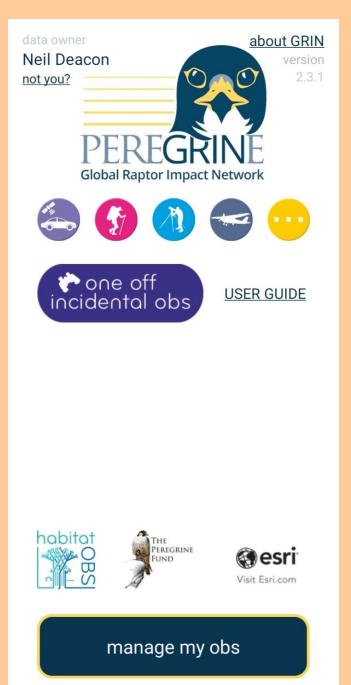
Defending the Batoka Gorge: the Taita as a flagship species

- 2006: Last record of Taita nesting in Batoka
- 2007: PAOC 15 Taita Workshop.
- 2014: Batoka Gorge ESIA commences.
- 2018: Taita declared as Critically Endangered (South Africa)
- 2021: (Jan) BirdLife Zimbabwe/BirdWatch Zambia position paper published.
- 2021 (Mar.): Virtual Taita Workshop.
- 2021: (July) Position Paper prompts statement from World Heritage Committee following investigation
- 2022: (Oct) revised position paper submitted to Environmental Management Agency.
- Construction of dam has been suspended
- Batoka Gorge issue has promoted further collaboration with BirdLife partners & RSPB (Mana Pools Gas & Oil prospecting)



Record Keeping & Data Management

- Batoka Gorge advocacy has highlighted importance of record keeping.
- Ultimately it was the negative impact on biodiversity, particularly raptors, which prompted the WHC investigative mission.
- Ron Hartley was meticulous with recording observations on all species. This was crucial not only for Batoka Gorge, but other conservation initiatives such as identifying the Vulture Safe Zones in the Save Conservancy.
- Quantitative data required for categorization of species (Raptors MOU)
- Modern phone Apps simplify this task and make recording of observations accessible to a wider audience, and not necessarily limited to raptors (BirdLasser, E-Bird).
- Social media groups e.g. BLZ "Special Species" offer another wide base for capturing species observations.
- A data storage and management plan is vital.



Advancing conservation through Falconry

- How do we get the next generation to engage with nature and conservation?
- Hunting wild quarry with a raptor to promote conservation seems oxymoronic
- Frequent (daily) exposure promotes an understanding of ecology and processes that has no substitute in conventional education
- Education provides some of the necessary credibility required to 'position' young falconers where they can influence conservation
- The life sciences are increasingly more a vocation and less of a career.





