Peregrine falcon monitoring, author: Benito Ruiz Calatayud

GPS TECHNOLOGY AS A FUNDAMENTAL TOOL IN THE MONITORING OF REHABILITATED ANIMALS IN RECOVERY CENTERS.
The experience at GREFA recovery center.

GREFA
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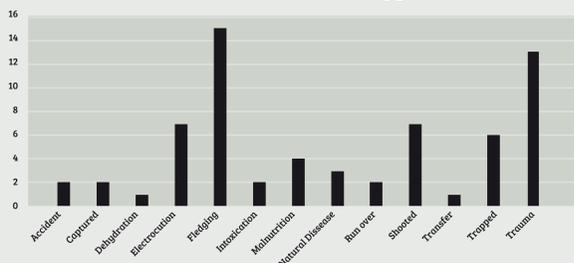Aguado J., Otero I., Iglesias Lebrija JJ., Galán M.,Martinez J., Álvarez E., Moraleda V.

INTRODUCTION

One of the objectives of a wildlife recovery center (WRC) is to rehabilitate animals in such a way that they are capable of adapting to their natural environment. However, the viability of these animals is still unknown for a large number of species. In recent years, the GREFA recovery center has begun to develop animal monitoring experiences that raise doubts as to their survival in the natural environment due to the severity of their injuries, ethological behaviors or other factors derived from captivity. Analysis of the treatment methods used, rehabilitation and release techniques are necessary to improve the efficiency of a WRC. All of these questions can be answered with effective tracking techniques such as GPS transmitter as well as knowledge of the interactions of rehabilitated animals in resident wildlife.

MATERIAL & METHODS

1 rescue
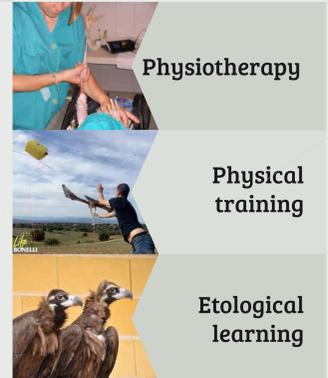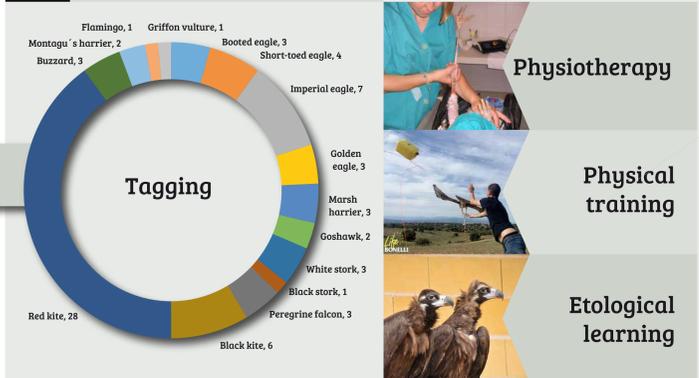
Causes of admission of tagged birds

2 Veterinary treatments

4 Tagging and monitoring

goshawk tagging

Booted eagle with transmitter before being released

3 Rehabilitation

Tagging

Flamingo, 1; Griffon vulture, 1; Montagu´s harrier, 2; Booted eagle, 3; Buzzard, 3; Short-toed eagle, 4; Imperial eagle, 7; Golden eagle, 3; Marsh harrier, 3; Goshawk, 2; White stork, 3; Black stork, 1; Peregrine falcon, 3; Black kite, 6; Red kite, 28
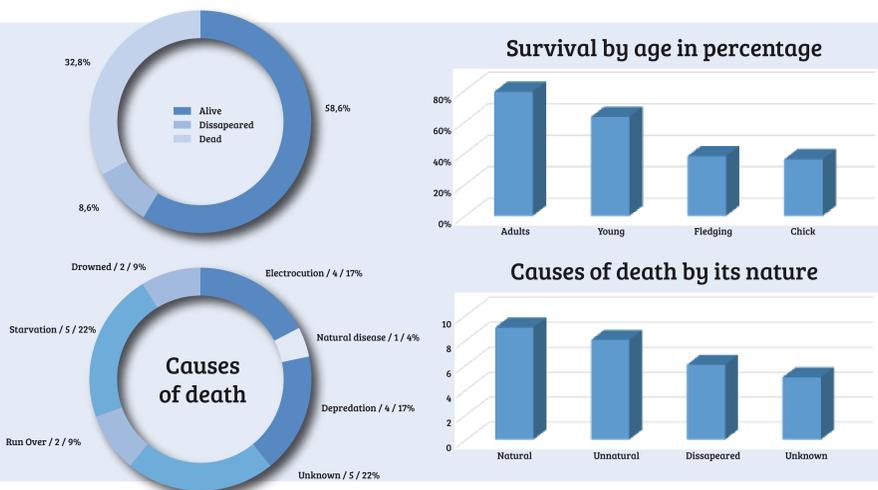
Physiotherapy

Physical training

Etological learning

RESULTS

A total of 70 individuals of 16 different species have been tagged. 23 of these individuals died, 6 disappeared and 41 remained alive for more than 3 months. Although G.E. Duke et al. (1981) considered "6 weeks of survival to be a minimum standard of success" (p.4), we believe that at least 12 weeks of survival are needed to assume a total incorporation of the individual into the natural environment. This means that 58.5% to 67% of the released animals succeeded.

Alive 58,6%
Disappeared 8,6%
Dead 32,8%

Survival by age in percentage
Adults / Young / Fledging / Chick

Causes of death
Drowned / 2 / 9%
Electrocution / 4 / 17%
Starvation / 5 / 22%
Natural disease / 1 / 4%
Depredation / 4 / 17%
Run Over / 2 / 9%
Unknown / 5 / 22%

Causes of death by its nature
Natural / Unnatural / Dissapeared / Unknown

CONCLUSIONS

- Veterinary and rehabilitation treatments were effective since most of the animals survived.

- 39% of the deceased animales, died due to a non successful incorporation to the environment (21% starvation and 17% depredation), so the survival rate could have been higher without anthropic influence.

- In 2022, at least 28 other specimens will be tagged. Progressively over the years and increasing the number of tagged animals, we will be able to investigate what happens to rehabilitated animals according to their age, species, sex, etc.

- Initially, data shows higher survival problems for chicks and fledglings so we have priorized tagging individuals on this stage. Although it is something normal in wild populations, monitoring allows us to continue investigating rehabilitation techniques to improve our methods. During 2021 and 2022, mainly chicks and fledglings that fell from the nest were tagged without any experience in the field. Of the 27 tagged in this age range, only 3 die of starvation and only 2 are preyed upon. 5 of them disappeared and in 3 cases the cause of death is unknow.
Only 5 adults died before 90 days. 3 of them were one-eyed, 1 suffered an electrocution and the other disappeared.

Other Data

- The percentage of success in red kites (the most tagged species) is 78%

- The percentage of success in imperial eagles is 43% (the deceased 3 were electrocuted and 1 was run over)

- The percentage of success in black kites is 33% but all individuals crossed the Strait of Gibraltar in their first year of life, although they did not reach 90 days of age because they died or disappeared during migration.

- The percentage of success in marsh harriers is 100%

BIBLIOGRAPHY

- G. E. Duke, P. T. Redig, and W. Jones (1981). Recoveries and resightings of released rehabilitated raptors. Raptor Research 15:97-107

- Cochran W. W. 1980. Wildlife Telemetry. Pages 507-520. In S.D. Schemnitz, ED. Wildlife management techinques manual. The Wildl. Soc, Washington, DC. 686 pp.

Tagged Flamingo, author: David Perez

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