Cinereous Vulture (*Aegypius monachus*) CAPTIVE BREEDING at GREFA

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INTRODUCTION

GREFA has developed several conservation programs involving the Cinereous vulture (*Aegypius monachus*) in the Iberian Peninsula and has also been involved in other projects throughout Europe with this species. In the meantime, many individuals were brought to the Wildlife Hospital that GREFA is running in Majadahonda, Madrid (Spain) in order to be added to this program. In some cases, the vultures were severely wounded and could not be released into the wild. These individuals have been kept in captivity and enabled GREFA to establish a small breeding project.

METHODS

Since the beginning of the program, the aviaries have been built following the "skylight and seclusion" design in order to keep the birds away from disturbance that could prevent them from breeding.

These aviaries were equipped with cameras that enabled the staff to closely watch the behaviour of the birds during the breeding season. Feeding and water-changing were always done from the outside of the enclosures. The staff would only get inside the aviaries when adding nesting material, pulling clutches, placing chicks for fostering or removing chicks ready for release.

Figure 1: skylight and seclusion pen design

The adults were caught and checked by the veterinarians once a year and the enclosures were cleaned up and fixed at the same time. Pairs were established by means of a pairing aviary or by placing two birds together that were showing courtship behaviours towards other members of the species (the members of the established pair were housed apart from each other and never met before).

Once the eggs were obtained, the methodology involved artificial incubation and hand-rearing, as shown in Figure 2. Radiographs were taken when hatching was delayed (Figure 3).

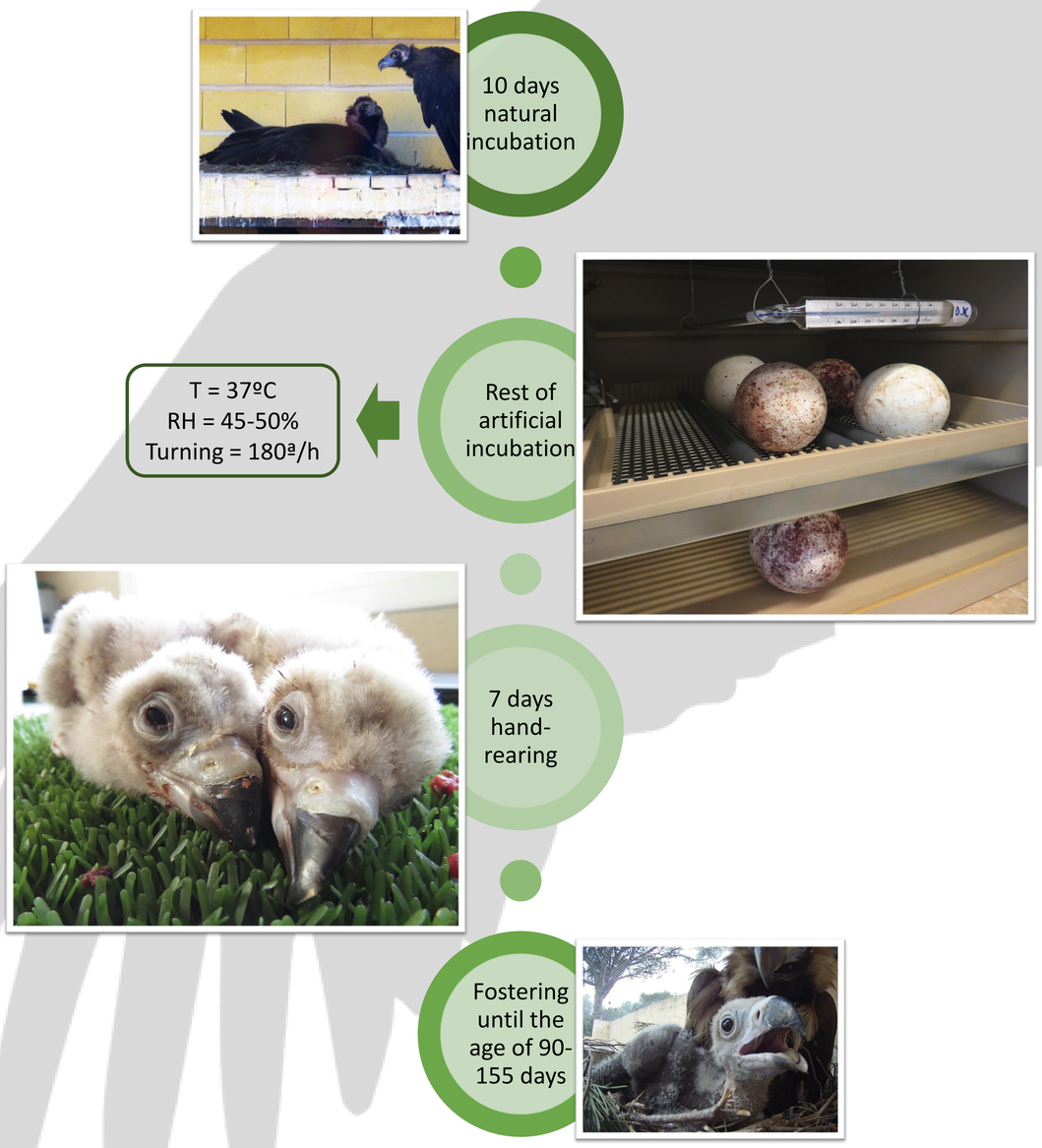

Figure 2: methodology applied since 2014

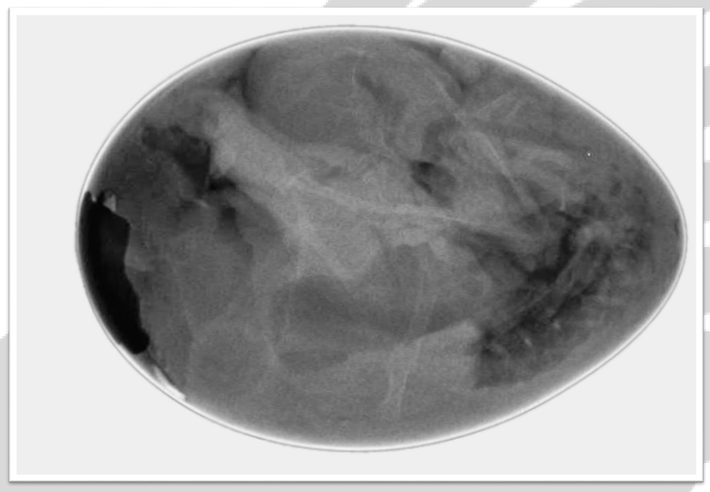

Figure 3: radiograph of a malpositioned embryo that had to be assisted through hatching

RESULTS

- 3 of the breeding pairs were established in pairing aviaries where the birds had choices (they were housed with, at least, another 4 individuals); these pairs have been successful since then.
- 2 pairs were established with birds that, in some point, showed courtship behaviour towards other birds; in this case, the pairs attempted breeding but have been only partly successful.
- Eggs were laid between the 8th of February and the 14th of April. The ones laid before March were removed and a second egg was laid after 3-4 weeks.
- A maximum of 5 birds was obtained during 2019 (Figure 4).

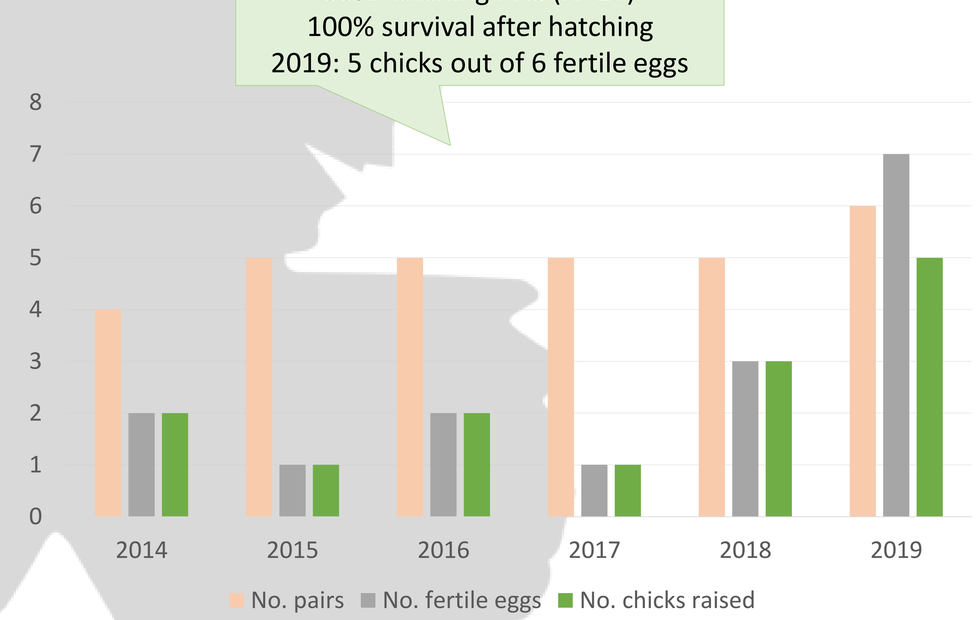

Figure 4: productivity evolution since 2014

CONCLUSIONS

- Sky and seclusion design has provided the proper environment for the birds of wild origin to breed.
- The establishment of the breeding pairs through an **aviary with multiple choices of mates resulted in very successful pairs**.
- The **artificial incubation** procedures and the early **hand-rearing** of the birds, along with the **removal of the first egg** enabled the program to achieve much **better results.**

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