

Are You My Parents?



Andy Sands/ NPL

**SDZSP nest manipulation
with emphasis on cross-fostering**

(Speaker notes are included in italics on separate slides.)

Species that have successfully been cross-fostered

- Pink pigeon and Squatter pigeon / Barbary dove
- East African Grey Crowned-crane / West African Black Crowned - crane
- Dalmatian pelican / Pink-backed pelican
- Great white pelican / Pink-backed pelican
- Red-crowned Crane / Wattled crane
- California condor / Andean condor
- Andean condor / California condor



Trisha M. Shears



Eric Kilby



ENDANGERED SPECIES

Pink Pigeon

- fostered by Barbary dove



- 11 of 16 survived until fledge
- 1992-2012
- 1997 - Prolactin treatment study conducted.

1997 – Prolactin: the question was, Is it better to keep a bunch of Barbary dove pairs all on different schedules to sync up with fostering needs or to have only a few pairs and induce brooding behavior and crop milk production using dummy eggs and injections of prolactin in series. The results were mixed and not overwhelmingly beneficial so it was decided to just keep a bunch of RTD pairs.

Pigeon and Dove species

- fostered by Barbary Dove
1992-present

Squatter pigeon

- After 2000, husbandry modifications increased survivability significantly



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Mixed success each of

- African Olive-pigeon
- Purple-tailed Imperial-pigeon
- Collared Imperial-pigeon
- Mindanao Bleeding-heart dove

VULNERABLE



Rebekah Ross



Johann Grobbelaar



ENDANGERED SPECIES

East African Grey Crowned-crane

- fostered by West African Black Crowned-crane



- New SSP pairing and wanted to ensure first offspring
- Established, reliable WACC pairing
- Raised on exhibit until fledge in full view of guests

2015- First time SSP EACC pairing laid first eggs. Wanted to ensure survival of first chicks then attempt parent rear in future. Long time overrepresented WACC pairing in an ideal enclosure for parent rearing. EACC eggs pulled to artificial incubation, given to WACCs when in AC? WACC pair sat an extra 42 days after their expected due date (total 70 days). Given back while in AC because of fear pair could abandon nest after so long. Hand rear was a back up if the birds wouldn't sit that long. Hatched & reared chicks on exhibit until wean without intervention.

Inc period: 28-30

VULNERABLE

Dalmatian Pelican

- fostered by Pink-backed pelican



2015 – #2 Dalmatian hatched under parents, placed under reliable experienced Pink-backed fosters on dummy eggs to increase second chick survivability

2015 (Mar)- Hatched under Dalmatian parents with older sibling in nest, pulled from nest one day later and put under a pair of Pink-Backed Pelicans who were sitting on a dummy egg. This was done due to poor likelihood of chick survival when there is an older sibling in the nest. The second egg/chick usually dies due to competition in Dalmatian Pelican nests. This chick was pulled from foster parents at 65 days old and put in a holding pen with a mentor Dalmatian Pelican (and a hand raised chick near the same age), she was then introduced to the Dalmatian Pelican flock 24 days later and the intro went very smoothly.

VULNERABLE

Great White Pelican

- fostered by Pink-backed pelican



2002 – 2 GW eggs
put in PB nest with 2
PB eggs. Hatched 4
eggs total

2014 – GW
incubated 10 days
and hatched by PB.
Died day 4,
disturbance near
enclosure, birds
away from nest,
neglect was not
suspected

2002 - Confusing story but seems like two Great White eggs were pulled from parents and artificially incubated due to the Great Whites not having success hatching/raising chicks on the island. The eggs were then put under a pair of Pink-Backs who had two eggs of their own due to ease of being able to provide more food to the enclosure. All 4 chicks hatched under the Pink-Backs but the Great Whites were slightly older and were out competing the pink back chicks. One Great White chick was pulled (I think put back under parents on the island) and one Pink-Backed chick died leaving them successfully raising one Pink-Back and one Great White chick concurrently until fledge

Lessons learned: be aware of chick size and temperaments of various species and ages in comparison with others in nest

2014 – GW fostered pink back, incubated 10days and hatched 31 May, died 4 days later (GW 814113), unknown cause but did not suspect neglect. Paired hatched 2 previous reared two previous chicks successfully and females eggs became infertile.

VULNERABLE

Wattled Crane

- fostered by Red-crowned Crane



2015 –

- Nonproductive RC pair, reliable laying/ sitting
- New egg breaking behavior in Wattled pair
- Pipped Wattled egg hatched/raised to wean by RC's

2015 - Long time (1995) RC pairing with long history infertile eggs, AI had been attempted of/on for 4 seasons. Very bonded and attentive to nests. When Wattled Crane pair first arrived they raised one unassisted before picking up inconsistent sitting and egg breaking behavior. Wattled and Red Crowned laid within 1 wk of each other. Dummy eggs placed under Red crowned as a back up to the Wattled pair. After consulting Fred ?, TAG coordinator? we determined we could try fertile Wattled Crane egg artificially incubated then placed under Red Crowned at pip. Wattled raised to wean by RC's

When there are only 22 remaining in the world...

The Andean condor has been used as a surrogate species for the recovery efforts for the California condor.

- Andean condors have cross-fostered California condors until the California pairs have been able to prove themselves reliable parents .
- California condors have cross-fostered Andean condors while developing parenting skills.



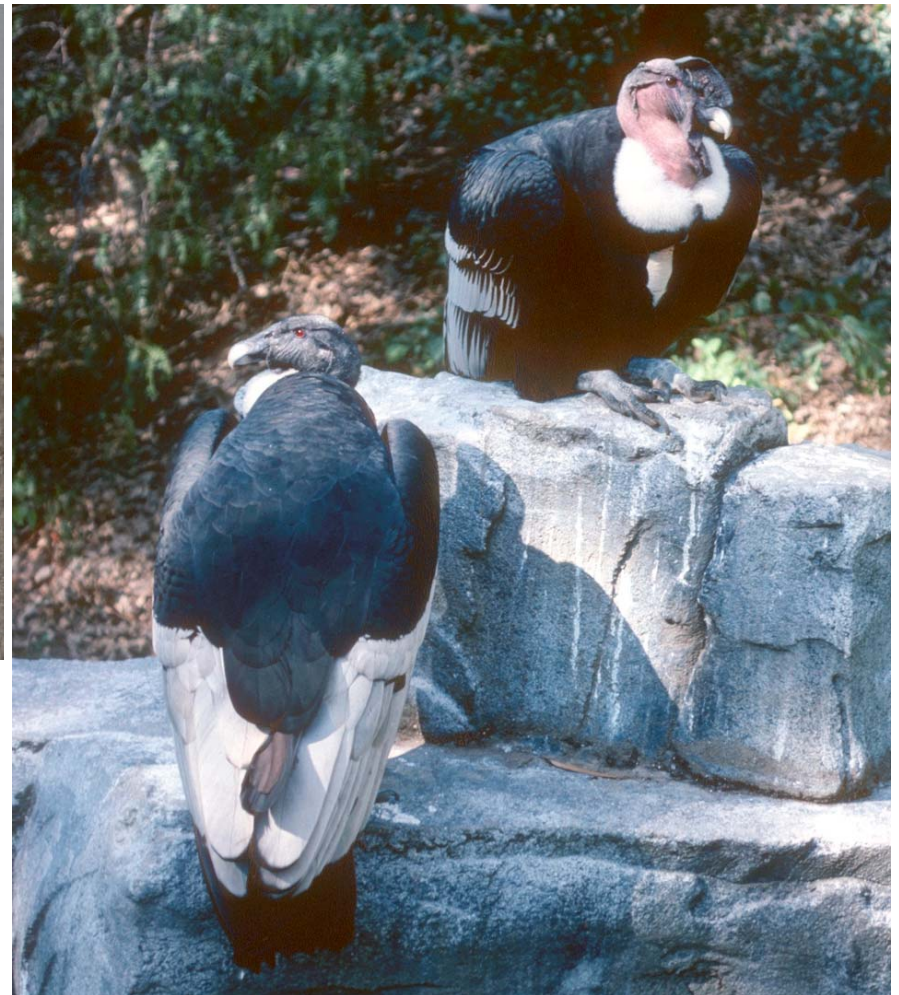
ENDANGERED SPECIES

California Condor

- fostered by Andean condor



From 1997 – 2004, five of our California condor chicks have been fostered to Andean condors (4 at San Diego Zoo Safari Park; 1 at Los Angeles Zoo).



Andean Condor

- fostered by California condor

From 1989 – 2004, ten Andean condor chicks have been fostered to California condors at the San Diego Zoo Safari Park.



Egg Manipulations/Problem Solving

- Manipulations in large field enclosures
 - Eggs removed for safe keeping
 - Returned at pip for parent hatch
 - Family group removed for rearing
 - Family group returned to enclosure



Sharing Enclosures



- Provide areas/features where birds can still be successful
- Gather data for planning which mammals can be successful with which birds
- Communication/coordination with all animal services depts

Thank You!!

All the credit belongs to Jenny Tibbott, Lauren Wright, Ron Webb, Andrew Stehly, Michael Mace and the rest of the SDZ Safari Park Bird Dept. who helped put this presentation together. All I did was repeat the information!

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