



Egg-cellent Transport!

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speaker notes in italics

abstract:

Transporting birds as eggs can have challenges but can also be a good alternative to shipping certain avian species and can minimize the risk to adult birds during transport. Several long-legged species may especially benefit from transport in the shell. Transporting eggs can also be a creative management solution for fostering or hand-rearing needs. There are a few extra steps such as TSA approvals, contacting airlines, and dealing with staff on the plane. In my case, it was pretty fun to have my own personal TSA agent escort me through the Atlanta airport with hatching Chilean flamingo eggs from Zoo Atlanta! I'll share this experience, as well as some tips, tricks and stories from some seasoned egg transporters.

Thank you to Nicole LaGreco and Sara Hallager for their contributions to this presentation.

Has anyone here been really nervous about shipping a bird? Is anyone more nervous about putting long-legged bird in a box and dropping it off?



Benefits

- Reduced risk of injury to adult birds during transport
- Increase genetic diversity
- Foster eggs to experienced parents
- Hand-rearing experience
- Less expensive
- More control
- Lots of adventure



Challenges

- Incubation parameters
- Security concerns
- In-flight management
- Personal Effort
- Hand-rearing or
Fostering

And very little leg room



Travelling

- By Air – plane and helicopter
- By Boat

*And very little
leg room*



Cost comparison

- 2015
- 5 Chilean Flamingos to Rhode Island
- 3 (borrowed) crates from Phoenix
 - 24.5” x 31.5: x 40” and 90 lbs
- From LAX to BOS



Cost comparison



- 2017
- 8 Chilean flamingo eggs
- One under-the-seat incubator
- LAX to ATL (and back)

Cost comparison

	5 adult flamingos in 2015	8 flamingo eggs in 2017
Travel Route	LAX to BOS to RI	LAX to ATL to LAX
Supplies	\$46.93	\$9.43
Shipping borrowed travel container	\$150.00	\$50.00
Airfare	\$1216.03	\$669.73
Misc	\$119.31	\$303.75
Total	\$1532.27	\$1032.91

*Supplies for the RWP shipment included carpets for crate interiors
Misc includes: Meals, gas, hotel for the egg transport, parking*



*Additional costs of
hand-rearing not
included*

Tools and Supplies



- Portable Incubator
- Batteries including multiple plugs
- Hand-warmers
- Foam to cradle the eggs
- Back-up thermometer

Other things I had on hand:

- *Bubble wrap/paper to insulate the hand warmers if needed*
- *Shock absorbing material: we use millet for our egg transports, both externally and within the zoo. Keep the millet in a hatcher or incubator at all times so it is warm on demand. NEVER microwave millet for immediate use as it can continue to heat after you remove it from the microwave.*
- *Transport brooder, 12v lead acid batteries to run the brooder when wall outlets aren't available, hand warmers as a back up heat source.*
- *Thermometer to monitor brooder temperature during transport.*
- *I always bring double of everything in case some thing fails. For a single brooder I have 2 batteries, 2 adapters for wall outlets, and 2 adapters to attach to the battery, and 2 battery chargers.*

Preparation

- Timing
- Traveler tips
 - Pre-flight
 - TSA
 - During flight



Preparation:

- *Pre-flight: normal travel arrangements (aisle seat, direct flight), call airline, book hotel*
 - *example: Delta said they would not accept the eggs*
- *TSA: call to ask for help with security*
 - *Tell everyone all about it!*
 - *Pool list of TSA contacts at airports we've travelled*
- *During the flight: have patience and expect to have to explain what you're doing, a lot.*
- *Examples: switching seat for access to incubator, pre-boarding*
- *Share some stories*
 - *James, prep for flying and experience with TSA*
 - *Carolyn's experience with flight attendant*

Human shock absorbers



- Balance the brooder on your lap
- Hold it up off your lap during turbulence
- *Book a window seat if at all possible—most flight crew will allow you to keep the brooder on your lap since you won't hinder anyone else from escaping in an emergency.*
- *Speak with the flight crew prior to boarding and explain what you are doing. They're generally very receptive and excited at the prospect of hatching eggs on their flights!*
- *Take advantage of pre-boarding.*

Boat Transport: Mangrove finch – Isabella Island to Santa Cruz Island



Boat transports are typically 24-72 hours, need to provide all the normal aspects of incubation.

Unable to get small Dean's brooders so use Brinsea Octagons (also no longer being made)

Eggs due to hatch placed in paper towel rings.

Eggs not due to hatch placed in row.

Minimal turning due to the rocking of the boat and overall instability—increasing risk of breakage due to handling.



OOPS

We try to time our transports at the end of incubation, but prior to hatching.

Embryos don't always get the memo and end up hatching in transport

Final Product



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