Beyond the Nest: The Role of Surrogate Parenting in Rehabilitation of Birds of Prey

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Defining Our Terms

- Raptor Surrogacy
    - The raising of bird of prey orphans by non-biologically related role models.
- Surrogate Conservation
    - Increasing the survival rate, genetic diversity potential, and release success of young raptor species.

Surrogate Conservation Goals

- To provide young orphaned raptors with a safe environment to develop and thrive.

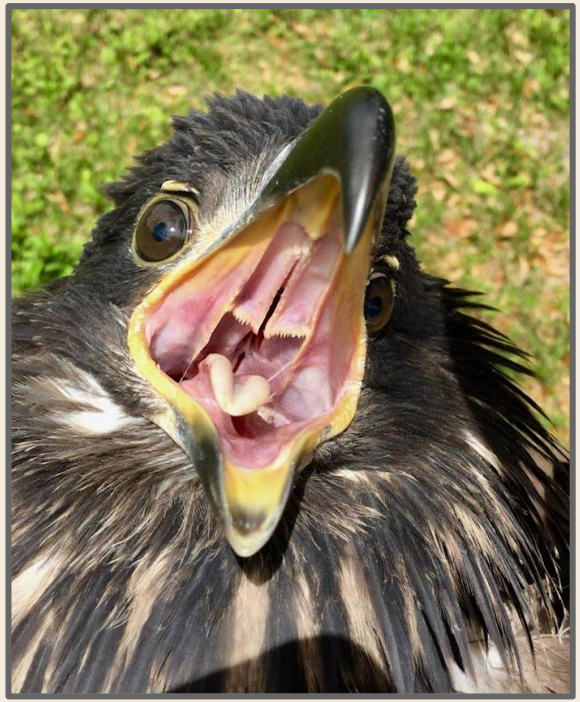
- To properly imprint on their own species as well as mirror behaviors and essential life skills by providing an appropriate role model while also minimizing interactions with human providers.

- To set up for eventual release back into the wild with a skill set to fully re-integrate with the natural world.

Essential Considerations for Surrogate Success

- Know your…
  - Species: What are the nesting and baby seasons?
  - Surrogates: Are they willing and capable currently?
  - Personal Capabilities: Do you have the food, space, and other necessities?
  - Network: Do you have other facilities or connections for support or for transferring/re-nesting orphans where they can go quickly?
  - Laws and Permits: Always be in conversation and compliance with your permits and officers!

Sounds Stressful? No Worries, Let’s Go Through the Details!



Stress

Less
Stress

Surrogate Setup - the Orphans

- Every species is different! Know your local nesting species and their basic natural history. Environment, nest location, baby calls, and physical traits can go far in helping identify your orphan and what surrogate you need.

- The nestling needs the right species to imprint on. They learn who they are based on their whole environment. This includes sound, but mostly sight.

- Identifying raptor nestlings can be difficult. Don't always rely on the internet! Reach out to others with a picture text/email if unsure. (We love identifying raptors for people!)

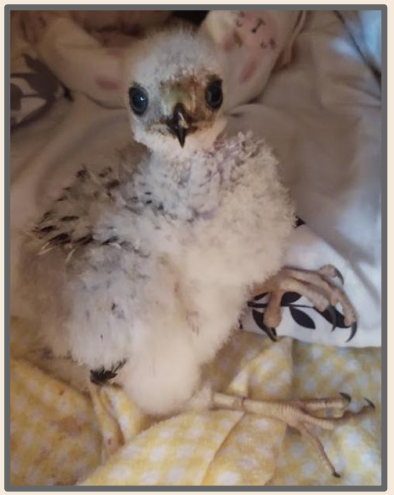
Identification









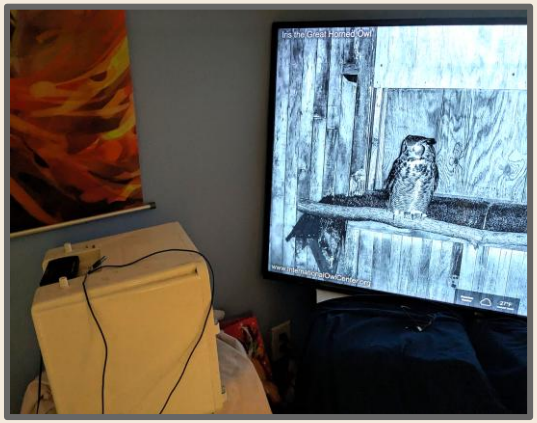
Surrogate Setup – the Surrogates

- The best surrogates are usually adult parental role models. Some can do everything (incubating, feeding, teaching) and others less, but even an only visual surrogate can be sufficient enough for proper imprinting.

- Always try to find the optimal conditions to avoid mal-imprinting. Never have an impressionable young bird without some form of active surrogacy (parental, sibling, a plushie, nest cam, sounds of the species). The less humans have to get involved or be seen, the better!

- Always be careful in assessing the willingness and capability of your surrogates. Not every surrogate necessarily wants to participate every year or they may change how they want to.

Types of Surrogate Work

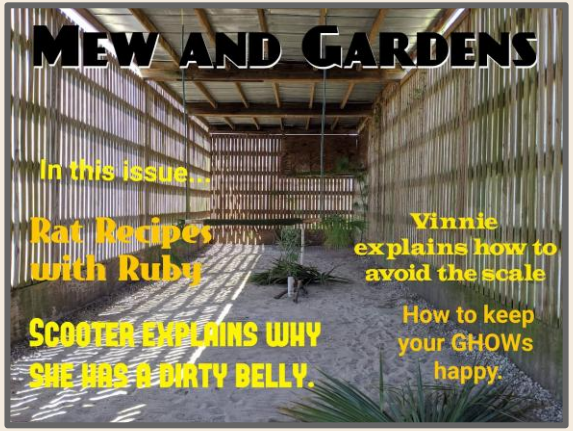


Examples of Surrogate Behaviors

Surrogate Setup – Accommodations

- Different ages need different things. Allow the surrogate to take over as much as possible, but keep in mind their limitations and provide what is needed for success for both orphan and surrogate.

- Orphan Needs (without surrogate help)
  - Temperature: Incubator, heating pad (until they can thermoregulate.)
  - Environment: Low stress, safe, quiet, soft nest-like bedding, natural surroundings, appropriate moving area, various perching to encourage growth.
  - Food: matching natural diet, may need assistance feeding until they can eat on their own (play natural sounds, no talking, cover hands and face.)


Mew and Gardens
In this issue...
Rat Recipes with Ruby
Vinnie explains how to avoid the scale
Scooter explains why she has a dirty belly.
How to keep your GHOWs happy.

Orphans Incoming

- Even with proper setup and understanding, unexpected scenarios can occur while doing surrogate work. A strong foundation to work from is best upon orphan intake.

- Initial Intake
  - Assess: Age, Species ID, Location info, Condition
  - Emergency Care: Often with raptors, orphans become so for a reason (abandoned or bullied because sick, injured, etc.)
  - Rest: General stress even from travel can wear them out. Provide non-emergency care after some quiet time to decompress.
  - Quarantine: To keep our surrogates and other orphans safe and healthy by preventing possible disease transmission.
  - Plan of Care: Based on the orphan's condition and age, set up a road map from current status to eventual release.

Gather Your Baseline

- Gather your essential setup for easy rehab:
  - Baseline Weight and Keel Assessment
  - Identification (banding, marking, etc.)
  - Comprehensive physical exam
  - Place in the appropriate environment for their age and condition.

- Watch out for:
  - Banding Issues/Injury
  - Shivering/Gular Fluttering (Needs Temperature Regulation)
  - Sudden fractures (Could be something like Metabolic Bone Disease - may need supplementation)
  - Abnormal Feces (May need Fecal Testing)

Construct Plan and Monitor

- Once you have a plan and your surrogate seems ready, set up the orphans as soon as possible.

- Indirect Monitoring and care:
  - Use phone/camera to keep watch.
  - Listen for unusual sounds (fighting, calling, etc.)
  - Feed as indirectly as possible (food chutes, hiding human presence.)
- Direct Interaction should be saved for:
  - Health and welfare checks (physicals, cleaning)
  - Surrogate Breaks: surrogacy can be very stressful.
- Re-assess as you go:
  - Stages of development require different care. Be flexible to provide what is needed to grow properly.

Examples of Good Progression

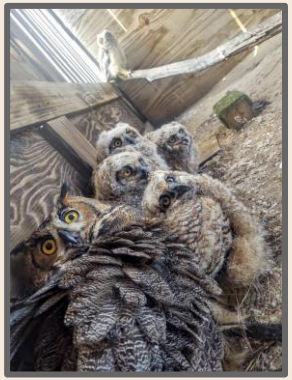
Watch Out For...

- Weight Fluctuations - May have ‘food hogs’ or slow developers who need extra monitoring to prevent unhealthy growth.
- Change in Behavior - Could be signs of imprinting (overly vocal, doesn’t flee humans) or disease (dull, depressed, lethargic). Ideally, you want orphans mirroring their surrogate’s wild behaviors.
- Change in Condition - Could be from rough housing, banding issues, insect involvement, late manifesting existing conditions, etc...
- Advancing Too Quickly - It’s good to encourage growth and independence, but not all orphans advance at the same pace, so take steps back if needed. Plan fluidity and reevaluating is key in rehab!

Leveling Up! Our Great Horned Owl Pipeline

Human Care

Surrogate Direct Care



Beginner Branching

Highest Branching

Increased Flight Area (Our 30’) and Surrogate Parent Separation

Short Distance Flight and Balance (Our 30’ or 50’)

Long Distance Flight, Stamina, and Live Prey (Our 100’)

Things to Consider Before Release:

- Be sure the bird has good overall condition, long term flight stamina, no signs of mal-imprinting, and can hunt live prey properly before considering release.
- Release orphans at or close to where they were found. Many species will reunite with their families and can remember the visual area from their time in the nest. Reach out to the locals if possible to watch for activity from the parents.
- Release in pairs if possible. Orphans can stick together sometimes while they adjust to the wild.
- Find a place with optimal habitat, food, and water conditions to accommodate the species.
- Consider the weather forecast for optimal conditions to thrive from the beginning.
- Be sure to release during the appropriate active hours of the species (Nocturnal, Diurnal, Crepuscular). Otherwise the bird could get a rough start!
- Stay away from pending/active construction, animal parks, main roads, parking lots, and heavy human presence. Also keep in mind the laws and regulations of the areas regarding animal releases. They are in place for a reason!
- Do not pick one place to drop off every bird. Overcrowding will have the opposite effect on the goal of conservation.
- Ensure any temporary bands or identifiers are removed before releasing. A physical exam is also recommended.
- Some species tend to fly away immediate, while others tend to ‘plop’ on the ground first. Consider keeping catch gloves on hand just in case they need a nudge or even re-capture (in case of a failed or too early release). Some birds may even need secondary falconry training/assessment to get to releasable status.

...and then release!

Thank You!