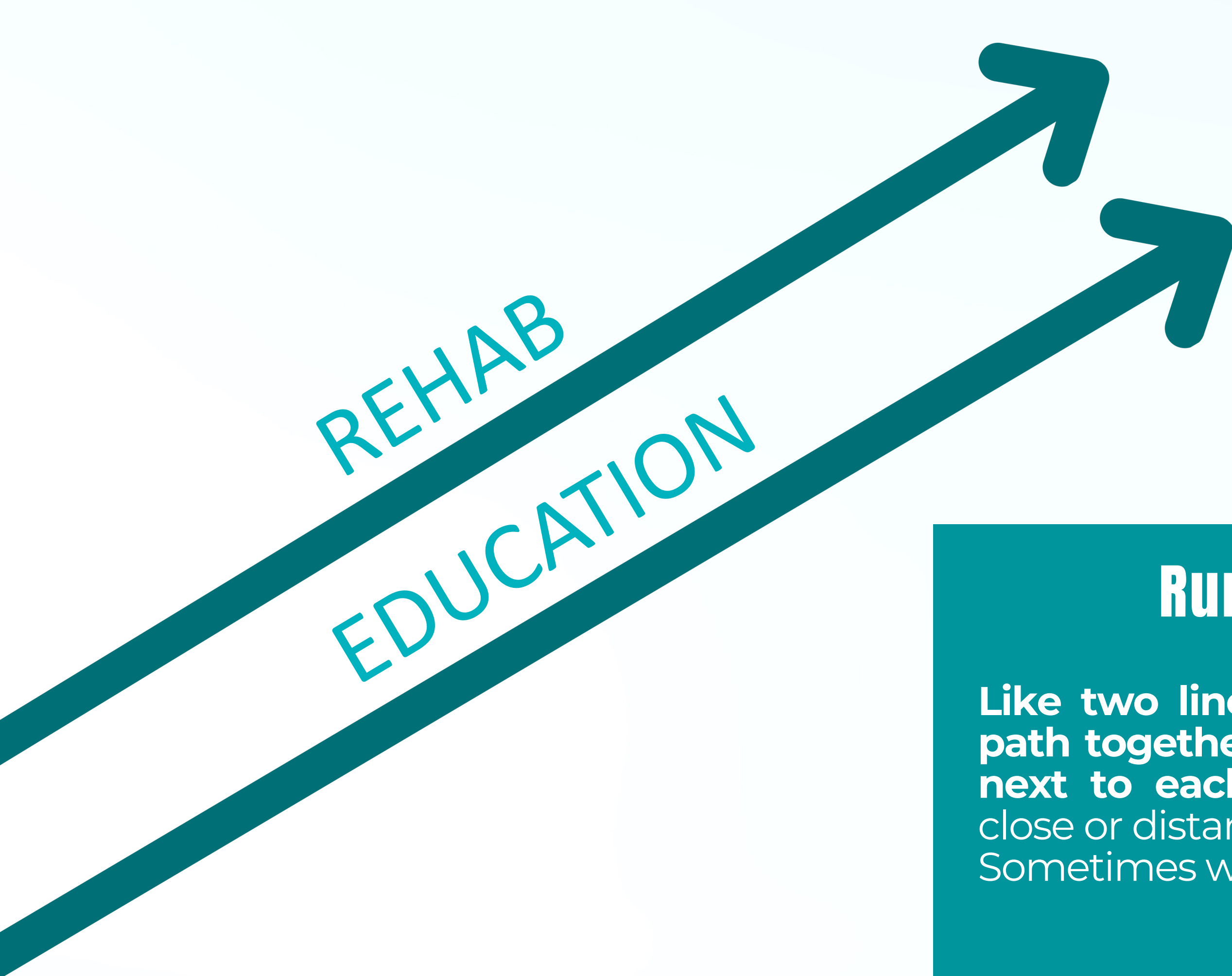




PLACEMENT AND WELFARE
OF Non-Releasable
RAPTORS

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Carolina Raptor Center



Running Parallel

Like two lines we are running along the path together, sometimes we are running next to each other on separate paths – close or distant but along the same direction. Sometimes we *intersect*



Animal Ambassadors



By representing their species, ambassador animals play an important role in conservation education











WHAT WAS
YOUR
DEFINING
MOMENT?

Transfer and Placement of Raptors



Department of the Interior
U.S. Fish & Wildlife Service

Migratory Bird and Eagle Acquisition and Transfer Request

BEFORE FILLING OUT THIS FORM, please access the [Return Addresses](#) (to obtain the email/postal mail addresses where this form can be returned).

(Please see page 2 for instructions)

If you:	complete these sections
A. wish to transfer a live bird to: another permittee; another permit you hold; or to an institution exempt from the permit requirement under 50 CFR 21.12,	1, 2, 3, 4, 5, and 6.
B. lost a bird due to its escape; theft; or death,	1, 2, and 6.
C. wish to acquire a live bird from another permittee (or from another permit you hold),	1, 2, 3, 4, 5, and 6.

1 **SPECIES:** _____ Band number or other identification (if applicable): _____
Sex: Male Female Unknown **Age:** Nestling Immature Adult **Source:** Wild Captive-bred

SENDER (person transferring bird) Name: _____
 Telephone: _____ Fax: _____ Email: _____
 Address: _____ City: _____ State: _____ Zip: _____ Permit #: _____

2 Type: Rehabilitation Education Exhibition Other Specify _____
 Is this bird being: Transferred Released Died - date & cause of death: _____
 Escaped - date & explanation: _____
 Other - date & explanation: _____
 Reason bird is unreleasable: _____

RECIPIENT (person acquiring bird) Name: _____



Welfare



The Association of Zoos and Aquariums (AZA) defines good welfare as animals that are “healthy, comfortable, well-nourished, safe, able to develop and express species-typical relationships, behaviors, and cognitive abilities, and not suffering from unpleasant states such as pain, fear, or distress.”



Mistakes:

Just an opportunity to start again with more information

Since our start:

- 25,992 raptors admitted
- 402 resident birds





Where Does Welfare Begin?

Careful selection of ambassador candidates in the acquisition/disposition phase is a determining factor in lifelong wellbeing





Disabilities and Healed Injuries

The injuries that prevent release can also cause chronic conditions that impact them for the duration of their life.

“healthy, comfortable, well-nourished, safe, able to develop and express species- typical relationships, behaviors, and cognitive abilities, and not suffering from unpleasant states such as **pain, fear, or distress.”**



WELFARE: PAIN

“not suffering from unpleasant states such as **pain**, fear, or distress.”



Pain in Raptors

- Masking Reflex
- Pain experience of birds



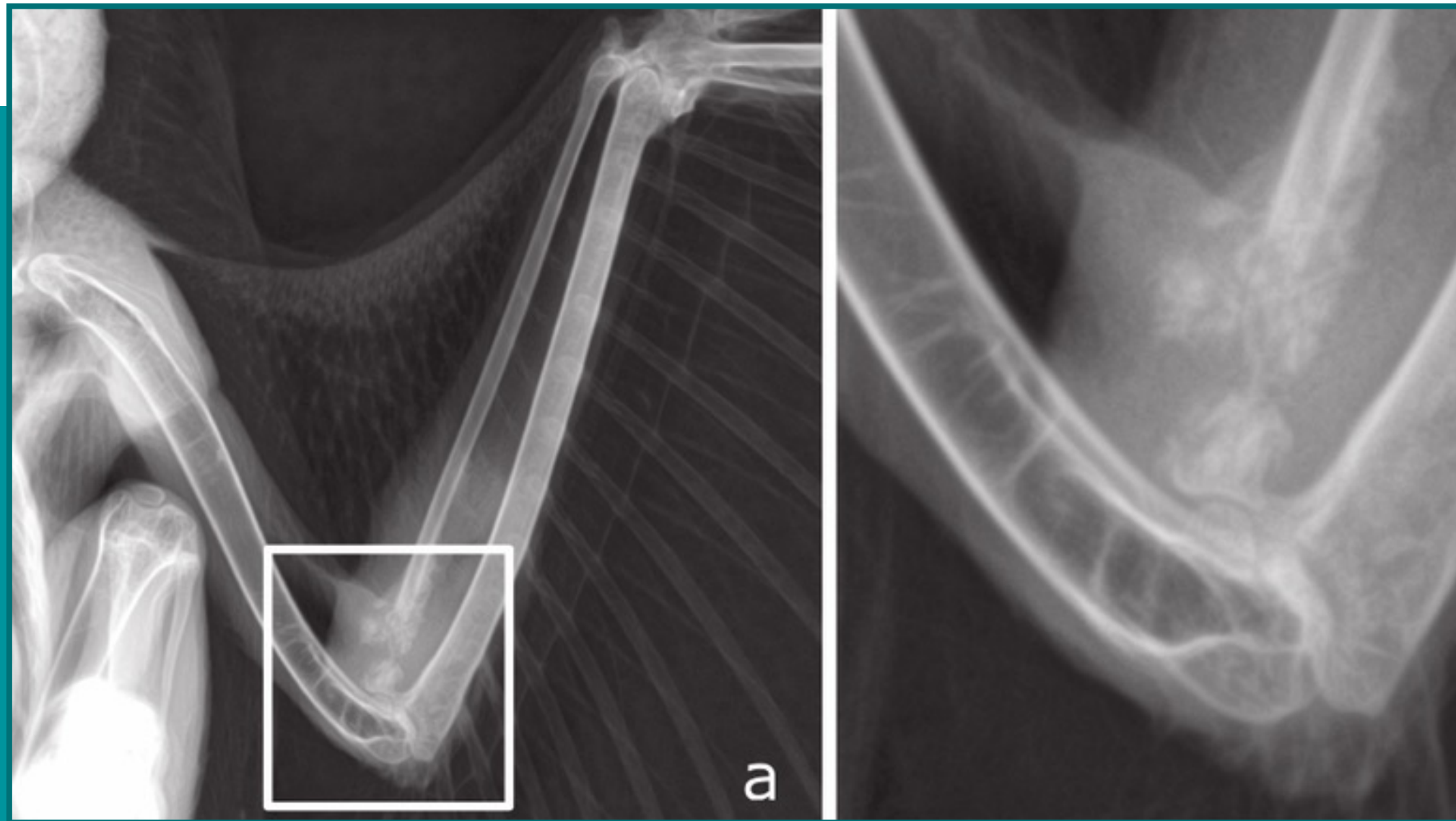
Chronic Pain

- Longterm effects
- Detecting pain
- Assumptions we *should* make
- Post mortem studies



- *In people, chronic pain is described as “one of the most negative experiences possible”*

Fractures Near Joints



- Chronic osteoarthritis
- Degenerative joint disease
- Chronic pain
- Immobility of the joint



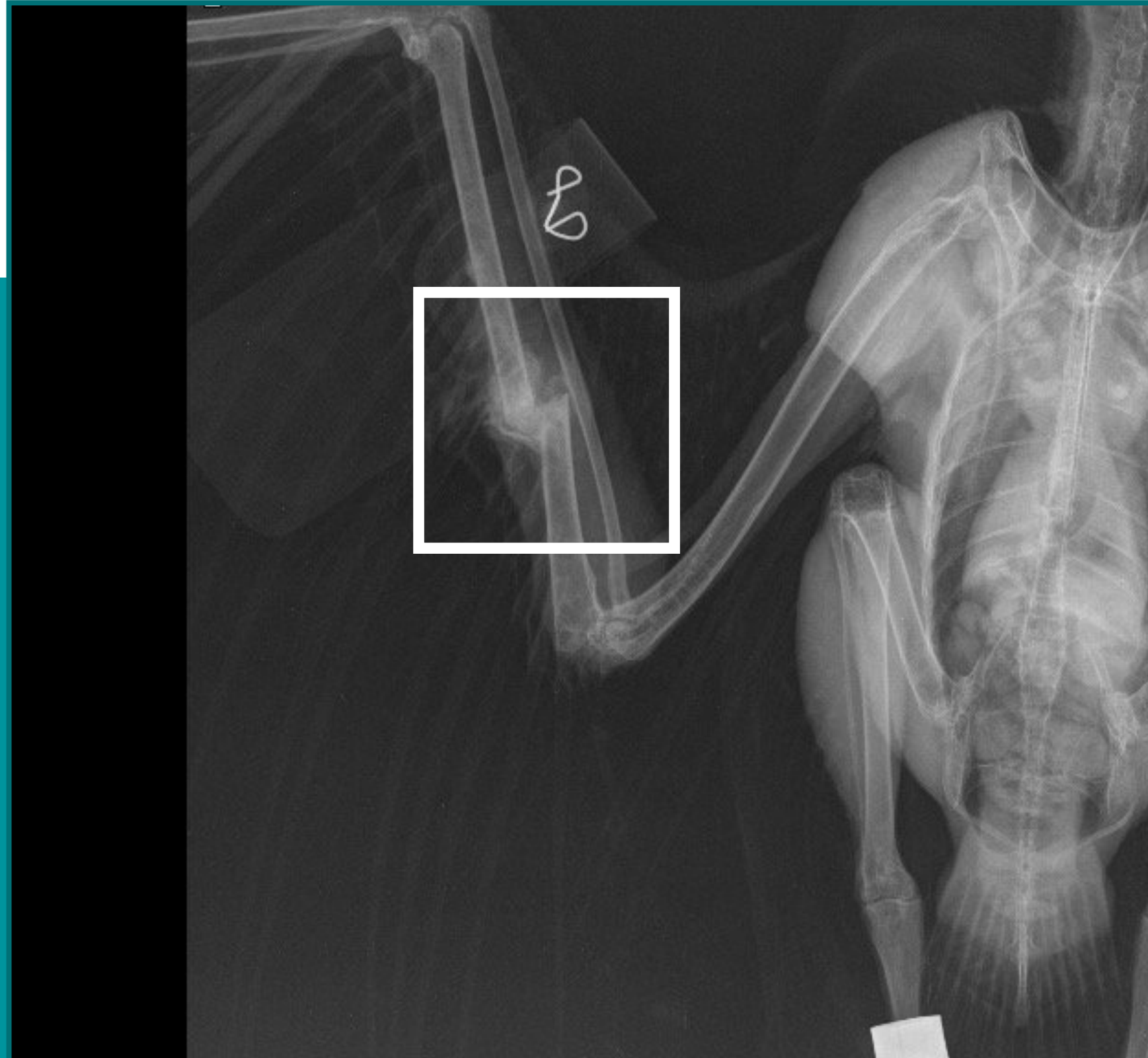
Non-Union Fractures



- Inability to use affected limb
- Chronic pain
- Nerve damage and muscle damage surrounding fracture



Malunion Fractures



- Inability to use affected limb
- Chronic pain
- Arthritis
- Lameness/Wing droop



Dislocated Joints



- Inability to use limb due to joint instability
- Long term severe, chronic pain
- Joint instability
- Damage to the muscles, bone, tendons, ligaments, and nerves





WELFARE: MOBILITY

“healthy, comfortable, well-nourished, **safe, able to develop and express species-typical relationships, behaviors,** and cognitive abilities, and not suffering from unpleasant states such as **pain, fear, or distress.**”





But why does mobility matter to birds that are under human care for the rest of their lives?

Mobility Disabilities

- Impaired mobility can result in secondary injuries and conditions
- Impacts psychological health
- Reduce ability to perform species appropriate behaviors



*A **mobility disability** is any disability that affects an animal's ability to independently and purposefully use their physical body.*

Immobile Joints

Conditions that cause joint stiffness and immobility also affect overall ambulation.

- Fractures near joints
- Osteoarthritis and joint disease
- Dislocated joints
- Non-union fractures



Chronic Secondary Injuries

Conditions that limit mobility can also lead to frequent, chronic injuries if the bird repeatedly attempts to escape a perceived threat or has trouble balancing during normal activities

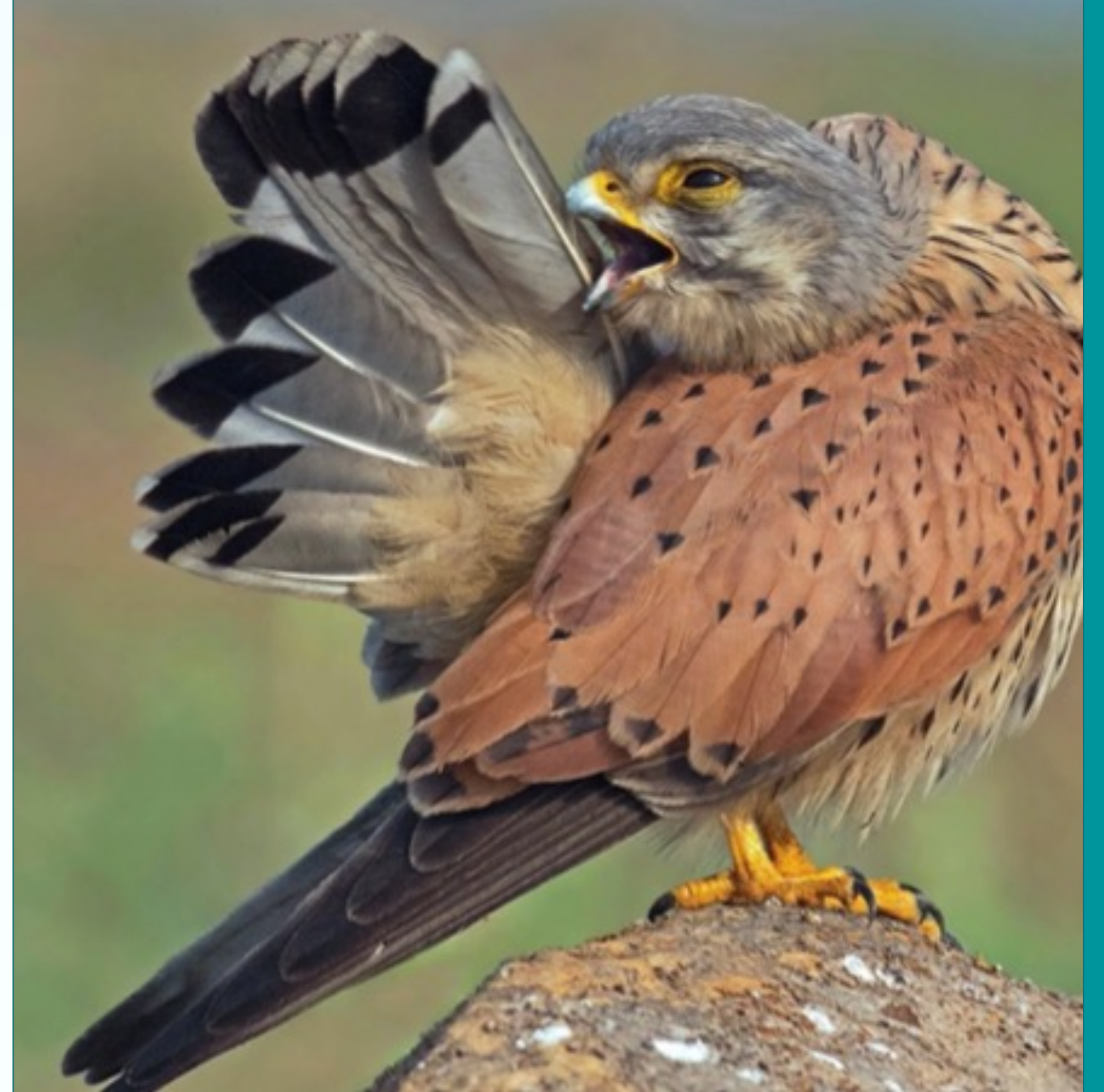
- Broken feathers and blood feathers
- Chronic soft tissue wounds
- Ruptured air sacs
- Maggots
- Inflammation and bruising



Feather Condition

Mobility disabilities and immobile joints impact overall feather condition

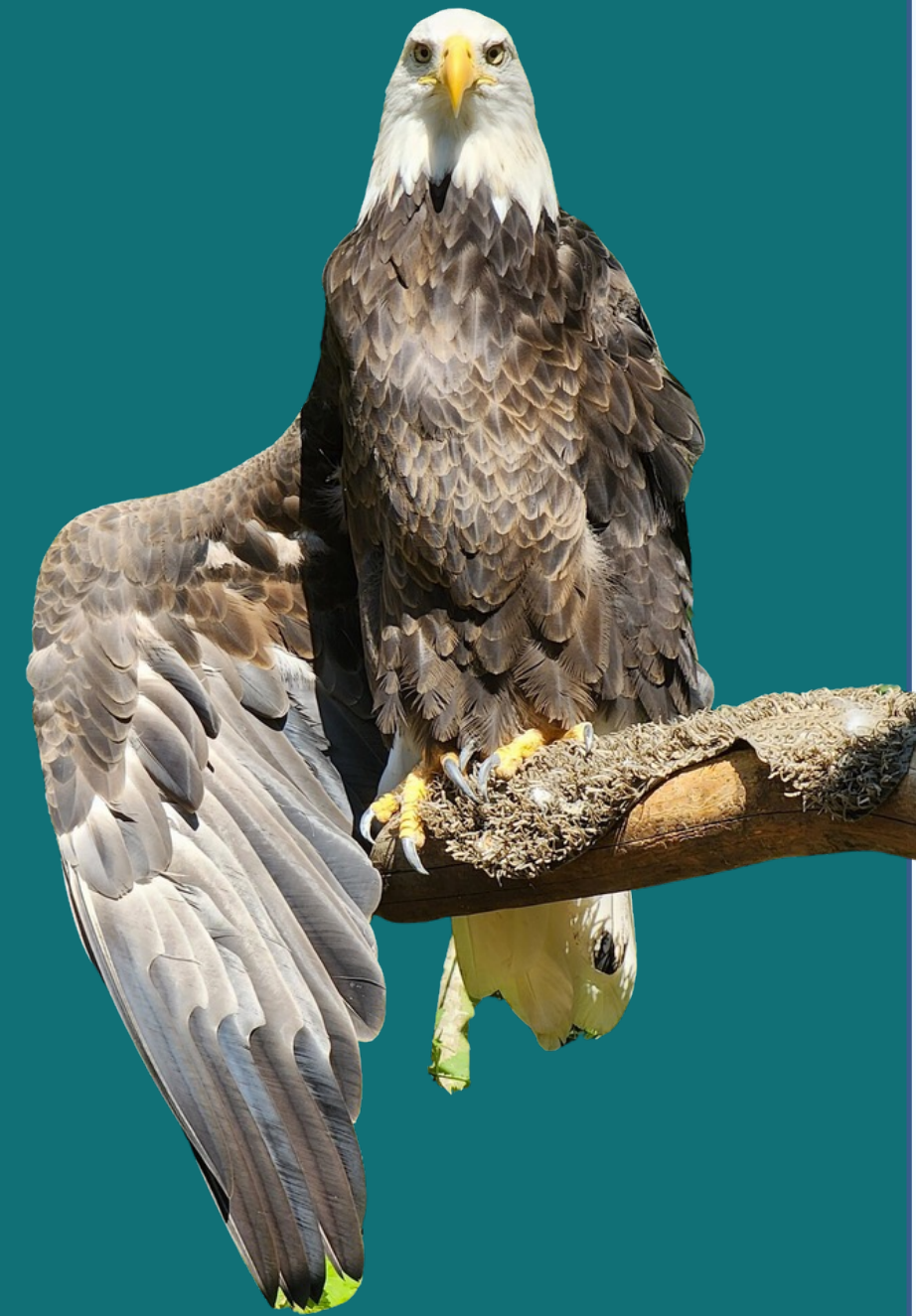
- Broken feathers
- Severe wing droop/dragging
- Inability to preen and feather rot
- Inability to bathe



Severe Wing Droop

Injuries that cause severe wing droops that can also significantly impact mobility.

- ✔ Non-union fracture
- ✔ Joint disease
- ✔ Joint dislocation
- ✔ Malunion fracture
- ✔ Nerve damage
- ✔ Tendon, muscle, ligament damage



Amputations



- Beyond legal limitations
- Impacts on welfare
 - Secondary injuries
 - Broken blood feathers
 - exposure
 - Loss of choice and control
 - Difficulty navigating space



Are there any amputations that don't impact welfare?



WELFARE: COGNITIVE HEALTH

“Healthy, **comfortable**, well-nourished, **safe**, **able to develop and express species-typical relationships, behaviors, and cognitive abilities**, and not suffering from unpleasant states such as pain, fear, or distress.”



Fear and Distress

Fear is a survival response and prepares the body for flight, fight, or freeze.

- ✔ Triggers physical reactions in the body
- ✔ Constant stress/fear has negative impacts on long term health
- ✔ Attempts to escape aversive stimulus can result in injury



Considerations to Promote Psychological Health

- Species
- Rearing Method
- Age
- Long term medical treatments
- Mobility
- Training methods that will be used



Species Selection

Species that are naturally high strung rarely make suitable ambassadors.



Age and Rearing Method

Some species must create positive associations with human caretakers at a young age. Once they reach adulthood they are more likely to continue to experience fear and inability to adjust in human care.

Imprinted, human reared owls and corvids have the best potential as future ambassadors

For more information, see the IAATE Position Statement:
**Welfare of Human-Reared Owls vs. Parent Reared
Owls in Ambassador Animal Programs**

IAATE.ORG



The Bad News

Unfortunately, most conditions and disabilities that lead to non-releasable status also lead to lifelong conditions that compromise welfare

But the good news is...



Toe/talon amputations



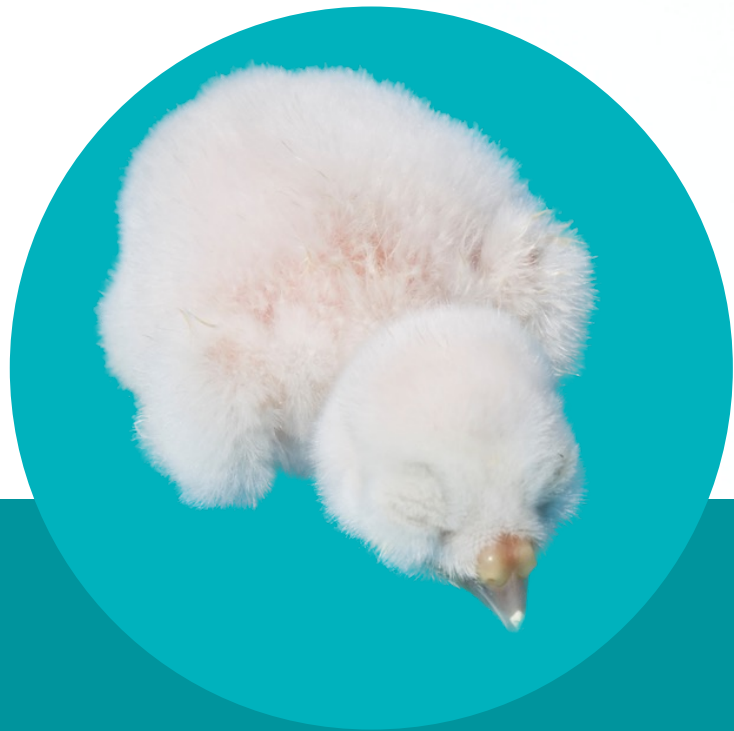
Damaged Alula



Missing Flight Feathers



Vision Deficiencies



Unintentional Imprints



Patagium Damage



Tail Injury

Questions for Acquiring Facility

- What species are you interested in acquiring?
- Describe your facility's mission and how ambassador animals are used.
- What types of animals are in your current collection?
- Describe how you care for and manage the health and wellness of ambassador animals in your care.
- Do you have a veterinarian that is knowledgeable about raptors? Please describe their experience.
- How long have you and/or other potential caretakers worked with raptors? What species have you worked with?
- Will this bird be housed with other animals?
- What role are you hoping this bird will have at your facility (glove, display, etc.)?
- Describe how you would prepare a new ambassador for exhibit/programs.
- Describe how you assess the welfare of animals in your care.
- Please describe animal training methods used at your facility.
- Are you able to pay for expenses related to transporting the bird to your facility? (Kennel, travel, flight, permits, driving, etc.)
- What is your planned transportation method, air or ground?

Evaluating Potential Candidates

Long Term Pain Assessment

- Does the animal have full range of motion in all joints?
- Is the animal free from non-union fractures?
- Is the animal free from fractures near joints?
- Is the animal free from joint dislocations?
- Is the animal free from severely misaligned healed fractures?
- Is the animal free from conditions that have the potential to cause long term pain?
- Is the free of physical injuries?
- Can any current conditions be treated, and if so, completely resolved?
- If permanently placed, will the animal be free of pain and stress from management, handling, or surgical procedures?
- Is the animal free from conditions that cause wing droop, lameness of a limb, or limping?
- Is the animal free of disease?

Psychological Assessment

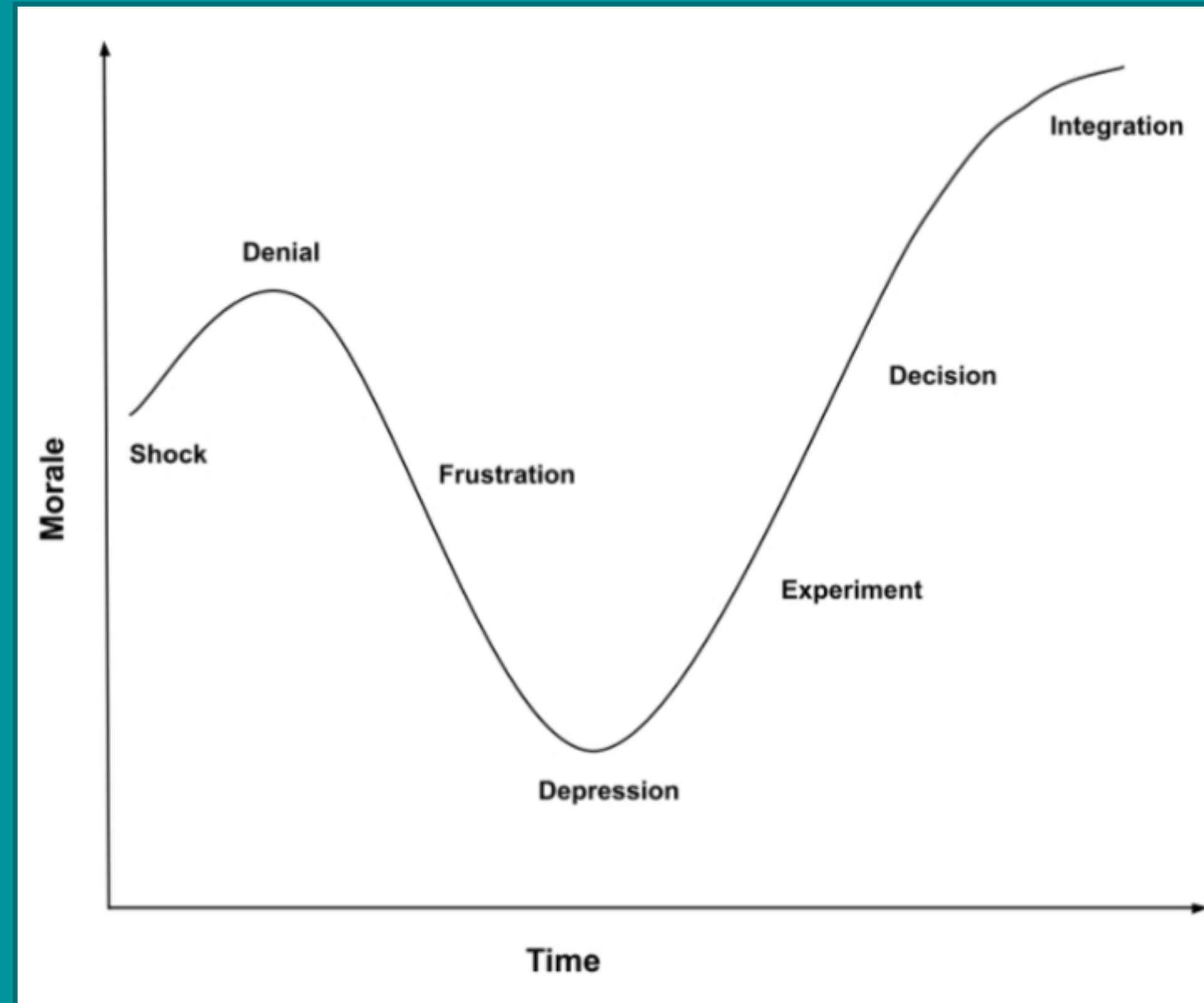
- Is the animal a species that is known to do well as an educational ambassador?
- If an owl, is it human reared, imprinted, or has not reached fledgling stage?
If an owl, is there potential to create a positive association of people before reaching fledgling stage?
- If medical treatment is needed, is it likely that the treatment will be low stress, and a short treatment time?
- Is the animal resting according to predicted patterns based on natural history?
- Does the animal show behaviors that indicate trust and comfort as opposed to avoidance and escape?
- Does the animal have potential to participate in modern training programs?
- Is the animal in its first year of life?

Long Term Mobility Assessment

- Is the animal free from conditions that could impact its ability to perform self-care behaviors, i.e., preening, bathing, sunning?
- Is the activity level normal for the species?
- Is the animal able to ambulate normally for the species i.e., walk, run, hop, fly, perch, stand upright, balance, land etc.?
- Can the animal access it's water supply?
- Can the animal locate food and self-feed without assistance?
- Is the animal able to navigate and move around freely?
- Does the animal make use of available space?
- Does the animals' sensory capabilities appear to be functioning normally?

Improving Welfare

- Careful and critical selection of potential ambassadors
- Embracing new standards of long term welfare
- At CRC we are placing less raptors than ever before
 - Since 2018 we received 4,708 raptors
 - We transferred 4 birds to other facilities for education
 - Transferred 8 birds to our own education permits
 - Euthanized 580





**“I DID THEN WHAT I
KNEW HOW TO DO.
NOW THAT I KNOW
BETTER, I DO
BETTER.”**

Maya Angelou

The End

Or not...

- Feel free to reach out with any questions on this topic
 - kdean@carolinaraptorcenter.org
- References
 - IAATE Position Statements
 - Welfare of Human Reared Vs Parent-Reared Owls in Ambassador Animal Program
 - Selection Considerations for Non-Releasable Birds
 - Kit Lacey [Selection Process for Non-Releasable Birds: The First Step in Bird Welfare.](#)

