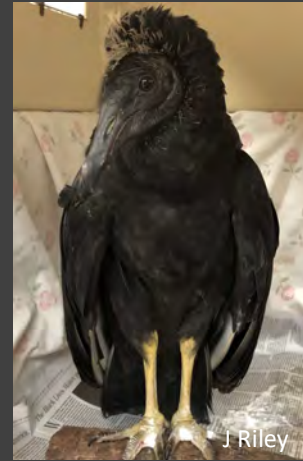




J Riley



J Riley



# Amazing Vultures

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HEATHER SHANK-GIVENS

FEBRUARY 2026

# Today's Talk

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- Overview of the natural history of vultures in Virginia
- Basic biology and ecology of our local vultures
- Vultures around the world and vulture conservation
- Human–vulture conflicts and mitigation strategies



*Gryphon*



*Vega*

# Dusty's Story

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A female Black Vulture

4 years old

A human imprint

- Hunter found eggs in the woods and hatched them (thinking they were turkey) and ended up with vulture chicks.



# Vega's Story

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A female Turkey Vulture

Born spring 2018

Admitted to BRWC January 2019 found on side of road with broken wing

- Illegal gunshot victim; 14 pellets (1 in brain)
- Fractured wing
- Nerve injury resulting in removal of right eye
- Lead poisoning
- Foreign body obstruction of digestive tract



## Vega (Wildlife Ambassador) admission radiographs

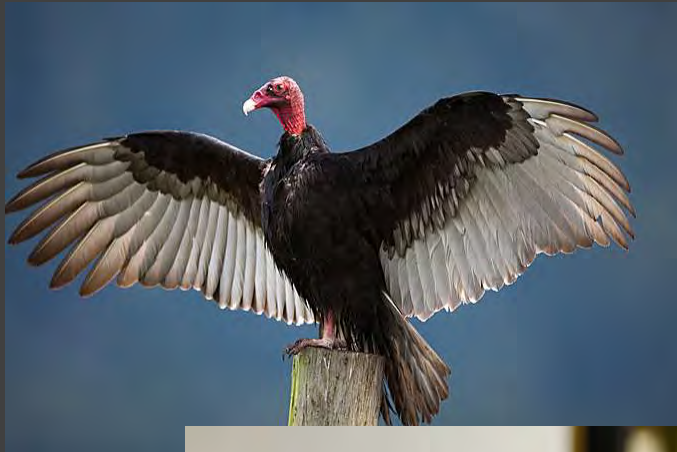


# Natural History

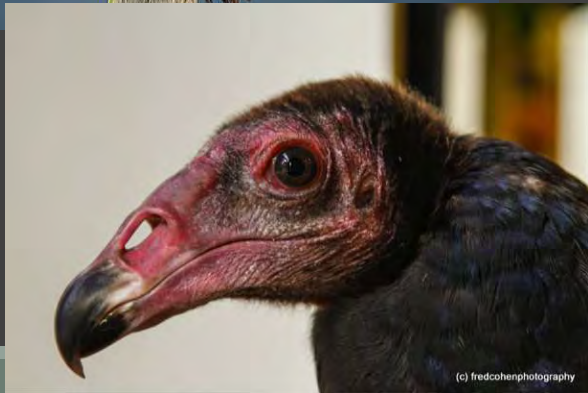
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# Our Local Vultures



*Turkey Vulture*



(c) fredcohenphotography



*Black Vulture*

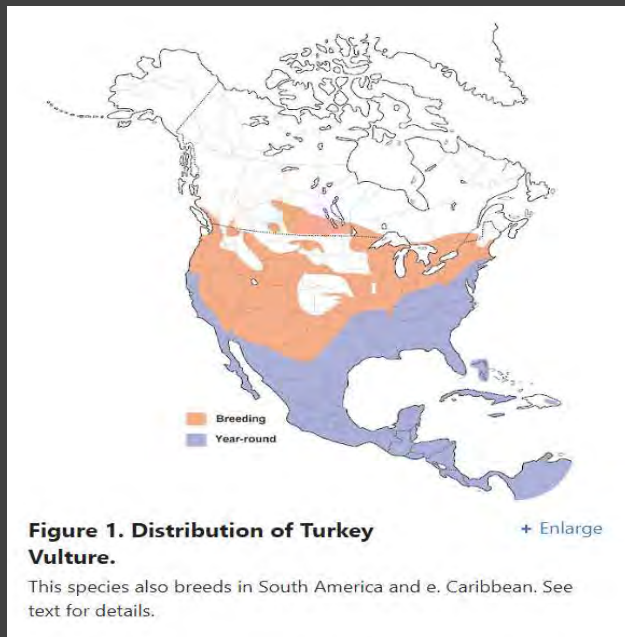


# VA Vulture Populations

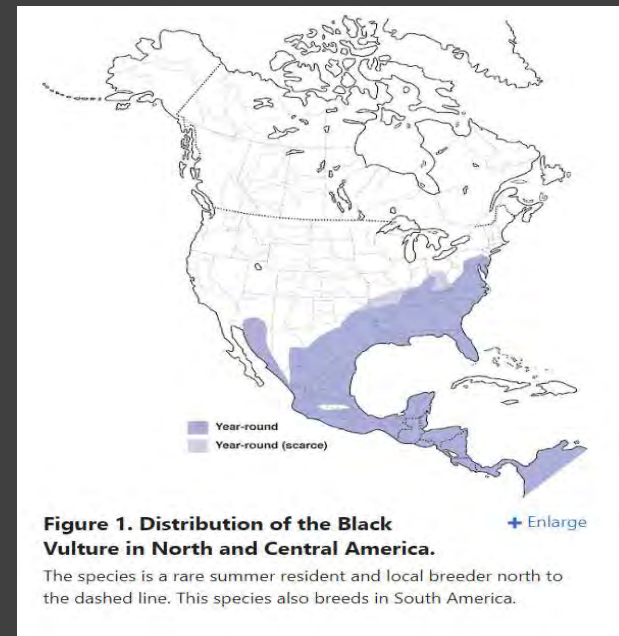
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- **Black vulture** (*Coragyps atratus*) - only species in its genus, 3 subspecies
  - *Coragyps atratus atratus*
- **Turkey vulture** (*Cathartes aura*) - one of 3 species in its genus, 6 subspecies
  - *Cathartes aura septentrionalis*
- Both populations are stable and increasing, with expanding ranges

# Geographic Distribution



## Turkey Vulture



## Black Vulture

# Black & Turkey Vultures

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Black and turkey vultures share many *ecological*, *behavioral*, and *physical* characteristics with a few notable differences.



# Basic biology & ecology of local vultures

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- Obligate scavengers - eat carrion
- Keen sense of *smell* for the Turkey Vulture and *sight* for the Black Vulture
- Highly social Black Vultures, more solitary Turkey Vultures
- Large communal roosts (both types of vultures)
- Lifespan potentially 10-20 years (> 40 years in captivity!!)
- Protected under the Migratory Bird Treaty Act
- IUCN Conservation status – *Least Concern*

# Appearance and Size (adult)



BLVU

- **Length:** 24-27 in (60-68 cm)
- **Wingspan:** 4.4-5.5 ft (137-150 cm)
- **Weight:** 4.2 – 5.8 lbs (1.6 – 2.2 kg)

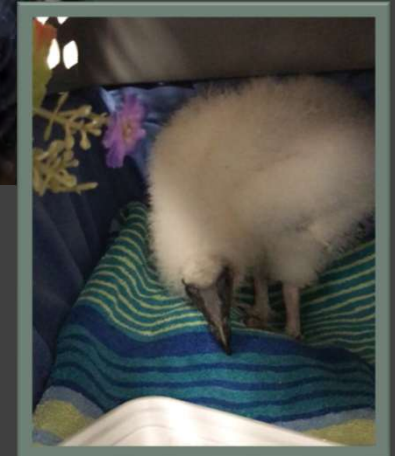


TUVU

- **Length:** 25-32 in (61-81 cm)
- **Wingspan:** 5-6.5 ft (1.5 – 2 m)
- **Weight:** 3.5 - 5 lbs (1.3-1.8 kg)

# Juveniles & Chicks

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# In flight



# Mating & Breeding

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Photo by David Manning

- Both are monogamous with long term pair bonds
- Breeding season: Feb-March for BLVU; March-June for TUVU
- Both typically lay 2 eggs, no nest, and both parents incubate and care for the young

# Habitat & Roosting

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- Mix of forest for roosting and open area for foraging.
- Often roost on/near structures/obstructions which provide early morning lift from thermals.



*JWHITFIELD@NEWSOBSERVER.COM*

# Critical ecosystem service

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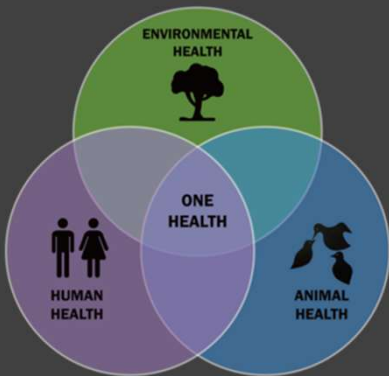
## Premier scavenger

Vultures rapidly consume and recycle dead animals in the environment

**Why is this so important???**

Removes dead and rotting animals

Prevents contamination and the spread of diseases



# Amazing adaptations

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- Uniquely adapted behaviorally and physiologically
  - Bald faces and mostly featherless heads/necks
  - Hooked beaks and barbed tongues
  - Large perforate nares (esp. TUVU)
  - Flat feet with sharp talons
  - Large wingspans and soaring behavior
  - Highly acidic stomach/GI tract (can destroy anthrax, botulism, and cholera!)

© the Phil. 2007 - <http://bigeye.com/wordpress.com>









***Large wingspan = Soaring flight = Energy conservation***



# Vultures of the World

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*Bearded/Lammergeier/Ossifrage*



*Egyptian*



**Egyptian Vulture (Neophron percnopterus)**  
© Photo by Ed Szupel Email : [edszupel@verizon.net](mailto:edszupel@verizon.net)



*Himalayan*



*Rüppells*

(Photo Credit: Bettina Boemans)



*Indian*



*King*

(Photo Credit: Jemima Parry-Jones, Director of ICBP)



© Judd Patterson  
www.BirdsInFocus.com

*Yellow-Headed*



*White-Headed*

Abdelrahman Hassanein



*Cinereous*

Juan Carlos Muñoz / Rewilding Europe



*California Condor*

Ken Bohn; San Diego Zoo Wildlife Alliance



*Cape*

Image credit: VulPro



*African White Backed*

# 23 Vulture Species in the World\*

**New World Vultures**  
(7 Species)

**Old World Vultures**  
(16 Species)

**North America**  
(3 species)

Central  
America

South  
America

Africa

Asia

Europe

**Virginia**  
(2 Species)

**Turkey  
Vulture**

**Black  
Vulture**

*\*Found on all continents except Australia and Antarctica*

# Vultures of the world

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- **Old World** and **New World** Vultures are distantly related taxonomically and have different characteristics.
- They fill the same critical ecological niche – **top scavenger** – due to convergent evolution
  - *Obligate scavengers*
  - *Featherless faces and baldish head/neck (most)*
  - *Large wingspan and soaring flight*
  - *Highly acidic stomachs*

# Vulture populations are endangered

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- *Vultures and other scavenging birds, are among the most threatened birds in the world*
- 12 of the 23 species of vultures in the world are classified as Endangered or Critically Endangered according to the IUCN Red List
- Causes of decline, which are all anthropogenic, vary geographically

# Reasons for population declines

## EUROPE (multiple nations)

- Wildlife poisoning; habitat loss; persecution

## UNITED STATES

- Lead poisoning
- Vehicle collisions
- Habitat loss



## AFRICA (multiple nations)

- Deliberate poisoning by poachers to prevent them identifying kills
- Indirect poisoning by farmers who leave poisoned carcasses for other predators
- Use in traditional medicine
- Wind turbines, powerlines, habitat loss, water reservoirs

## SOUTHEAST ASIA (India)

- Use of Diclofenac (an anti-inflammatory used in cattle) highly toxic to vultures, causing kidney failure
- In 1990's India's vulture population declined by **98%**

# When vultures decline

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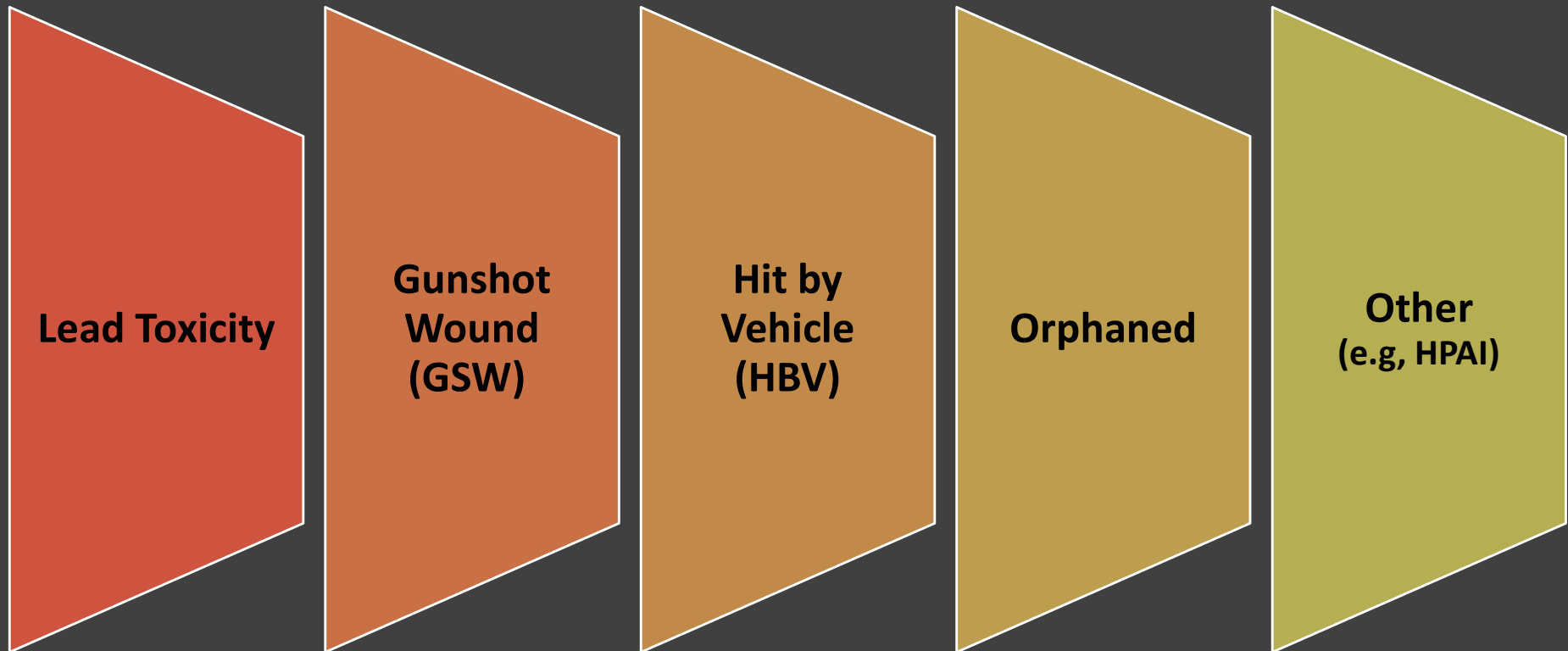
- Rotting carcasses, boom in insect populations, contaminated water
- Sharp increase in other scavengers - feral dogs, rats, etc.
- Spread of diseases, increased public health costs, and deaths
  - *Real world case study - India*
- Impact on cultural traditions (*sky burials* in India, Tibet, Iran)
- The global environment is impoverished by species loss

# Human-Vulture Conflicts

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# Reasons for Admission to BRWC

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# Challenges

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- Vultures congregate in large mixed species roosts, and they have fidelity to those roosts.
- Vultures thrive near human habitation – sources of roadkill, garbage, structures for nesting, etc.



John Hardin



Heather of the Hills Blogspot



Image: Steve Kapinos

# Mitigation

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- Vultures are protected under the Migratory Bird Treaty Act
- If there are wildlife damage issues - USDA/APHIS
  - Integrated Pest Management (IPM) Strategy
  - Deterrence (effigies/dead birds/loud noises, etc.)
  - Permits for killing in certain circumstances



*Bird Deterrent Technologies LLC*



Animal and Plant Health Inspection Service  
U.S. DEPARTMENT OF AGRICULTURE

## Wildlife Services

Wildlife Damage Management  
Technical Series



*“Black vultures and turkey vultures are part of the multi-species scavenging guild which provides valuable ecosystem services, including carrion removal, disease suppression, and nutrient recycling.”*

U.S. Department of Agriculture  
Animal & Plant Health Inspection Service  
Wildlife Services  
October 2016

Wildlife Damage Management  
Technical Series

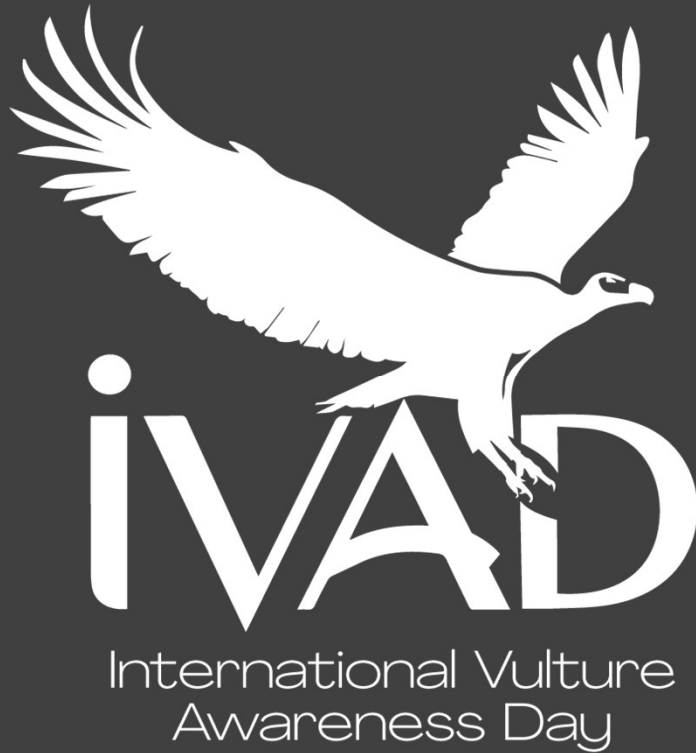
# Vultures



# Other resources and information

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- **All About Birds** (The Cornell Lab)
- **Birds of the World** (The Cornell Lab of Ornithology)
- **Ted Talks:** [www.ted.com/talks](http://www.ted.com/talks)
  - Munir Virani: Why I love vultures
  - Lauren Pharr: How vultures can help us solve crimes
- **National Geographic:** [www.nationalgeographic.com](http://www.nationalgeographic.com)
  - *Vultures are revolting. Here's why we need to save them.* January 2016 magazine
- **VulPro:** [www.vulpro.com](http://www.vulpro.com) (African Vultures)
- **Vulture Conservation Foundation:** [www.4vultures.org](http://www.4vultures.org) (European Vultures)
- **Ventana Wildlife Society:** [www.ventanaws.org](http://www.ventanaws.org) (California Condors)
- **SAVE:** [www.save-vultures.org](http://www.save-vultures.org) (Asian Vultures)
- **IVAD:** [www.vultureday.org](http://www.vultureday.org)

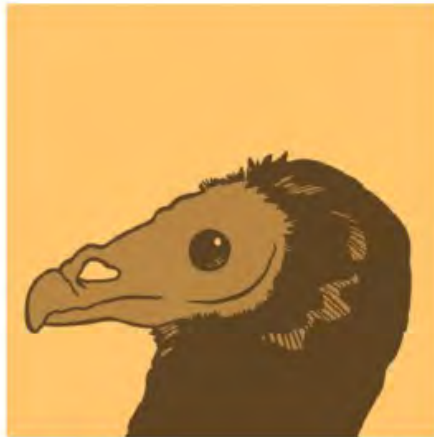


**First Saturday  
in September!!**

My main defense is



projectile vomiting.



I am so awesome.



# Questions

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Feel free to contact me with any questions...

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202-359-6735