

# Population Management of Anseriformes in AZA



# Keith Lovett



- Executive Director of Buttonwood Park Zoo and Buttonwood Park Zoological Society
- Anseriformes Taxon Advisory Group Chair



# Waterfowl Diversity in AZA



**135 SPECIES**



# Waterfowl Declines in AZA

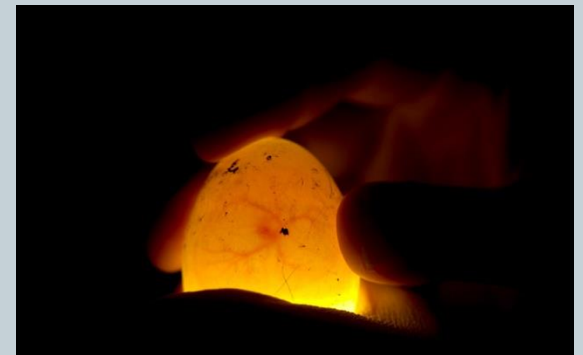


# Why the Decline?

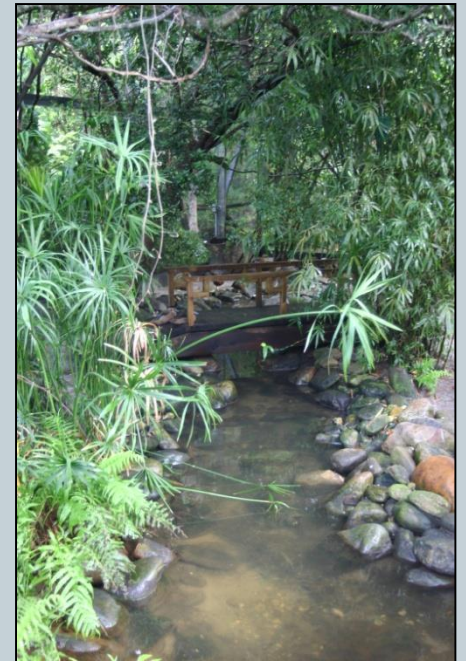




# Loss of Knowledge



# Loss of Waterfowl Exhibits





# New Exhibit Design





# New Exhibit Design



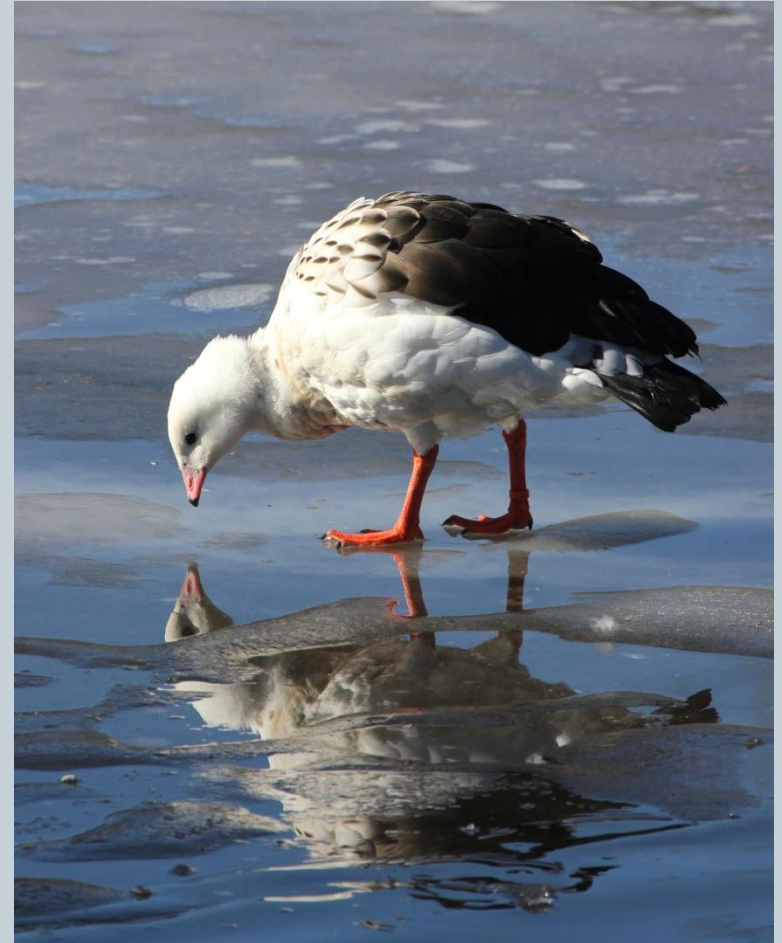
# New Exhibit Design



# Cost



- Acquisition
- Quarantine
- Shipment
- Exams





# Cost Examples



- Acquisition: **\$250**
- Shipment by commercial airline: **\$150**
- Quarantine medical testing (CBC, Chem Profile, Fecal Culture): **\$300** (2 birds)
- Vet Care Labor: **\$500** (1 hr a day for 30 days plus exit exam)
- Total: **\$1200**



# Zoos and Private Aviculture



# How do we respond?





# Managed Programs



## ASSOCIATION OF ZOOS & AQUARIUMS

### Anseriformes Taxon Advisory Group Regional Collection Plan 2<sup>nd</sup> Edition 2012

#### Compiled & Reviewed

Chair: Keith Lovett, Palm Beach Zoo  
Former Chair: Doug Piekara, Akron Zoo  
Vice Chair: Steve Surro, National Aviary  
Secretary: Jackie Peeler, Houston Robinson Zoo  
Editor: Julia Ecklar, National Aviary

AZA Anseriformes TAG Regional Collection Plan, 2<sup>nd</sup> Ed - April 2012  
Page 1

### Population Analysis & Breeding and Transfer Plan

#### Hawaiian Nene Goose (*Branta sandvicensis*) AZA Species Survival Plan® Yellow Program



AZA Species Survival Plan® Coordinator & Studbook Keeper  
Ken Reininger, North Carolina Zoo  
([ken.reininger@nczoo.org](mailto:ken.reininger@nczoo.org))

AZA Population Advisor  
Jessica Ray, Population Management Center, Lincoln Park Zoo  
([jray@lpzoo.org](mailto:jray@lpzoo.org))

25 August 2015

PMC

Population Management Center

Lincoln Park  
Zoo

ASSOCIATION  
OF ZOOS &  
AQUARIUMS

# List of SSP's

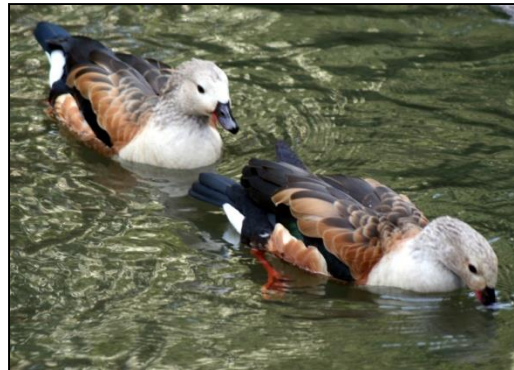


**GREEN SSP – NONE**

**YELLOW SSP – 10**

**RED SSP – 3**

**CANDIDATE PROGRAM - 2**



# Criteria



**Table 2: Green SSP, Yellow SSP, Red SSP and Candidate Program Management Overview**

	Green SSP	Yellow SSP	Red SSP	Candidate Program
<b>AZA POLICIES</b>				
AZA Acquisition and Disposition Policy	Required	Required	Required	Required
AZA Code of Professional Ethics	Required	Required	Required	Required
AZA Full Participation in SSP's Policy	Required	Voluntary	Voluntary	NA
AZA Animal Management Reconciliation Policy	Required	Not Required	Not Required	NA
WCMC Approval of Non-member Participants	Required	Not Required	Not Required	Not Required
<b>SUSTAINABILITY CRITERIA</b>				
Population Size (N)	50 and greater	50 and greater	20	NA
Minimum Number of Participating AZA Member Institutions*	3	3	3	NA
Projected Gene Diversity (%GD) at 100 years or 10 generations	90.0% or above	Less than 90.0%	Less than 90.0%	NA
<b>COOPERATIVE MANAGEMENT</b>				
TAG Recommended Animal Program in RCP	Required	Required	Required	Required
AZA Regional Studbook	Required	Required	Required	Not Required <sup>1</sup>
Formal Population Planning by PMC, Adjunct or SPMAG Advisor	Required	Required	Required	Not required
Management Group	If Needed	If Needed	If Needed	If Needed
<b>ACCOUNTABILITY</b>				
Develop 3 Program Goals	Required	Required	Required	Required
AZA and WCMC Oversight	Yes	Yes	Yes	No
Breeding & transfer Plan Published at least Every 3 Years	Required	Required	Required	Not Required
AZA Regional Studbook Published Every 3 Years	Required	Required	Required	Not Required
AZA Regional Studbook Keeper Must Take Population Management 1	Required	Required	Required	Recommended <sup>1</sup>
Program Leader Must Take Population Management 2	Recommended	Recommended	Recommended	Recommended



# Yellow SSP



- White-wing Wood Duck - 48.55.8 (111) at 13 institutions
- African Pygmy Goose - 50.45.3 (98) at 24 institutions
- Swan Goose – 36.31 (67) at 9 institutions
- Nene Goose - 37.35.4 (76) at 20 institutions
- Crested Screamer - 55.44.10 (109) at 49 institutions
- Coscoroba Swan – 18.17 (35) at 18 institutions
- Marbled Teal - 94.94.00 (188) at 40 institutions
- West Indian Whistling Duck - 38.26.2 (66) at 19 institutions
- Madagascar Teal 40.48.6 (94) at 15 institutions
- Orinoco Goose - 47.35.2 (84) at 21 institutions

# Red SSP



- Red-breasted Goose - 32.28.7 (67) at 17 institutions
- Spotted Whistling Duck - 18.9 (27) at 6 institutions
- Indian Pygmy Goose - 13.12.3 (28) at 11 institutions



# Candidate Program Species



- Baer's Pochard - 29.25.1 (55) at 8 institutions
- Scaly-sided Merganser 21.15 (36) at 9 institutions







# 2015 AZA Waterfowl Consortium

The Anseriformes Taxon Advisory Group is developing a new initiative to stem the decline of captive waterfowl populations in AZA. Many historically robust captive populations of waterfowl species have experienced significant decreases over the last decade. As a means to address some of these declines and work towards developing more sustainable populations, the TAG is developing the AZA Waterfowl Consortium. The Waterfowl Consortium will initially focus on 12 species (*6 warm weather, 6 cold weather species*). Emphasis was placed on selecting species with poor conservation status in the wild, species that have some level of demand from AZA institutions, and/or populations that the TAG feels can be realistically improved with Consortium efforts.

## Consortium Participation Criteria:

AZA Waterfowl Consortium members may be either AZA-accredited facilities OR TAG-endorsed (*non-accredited*) partners. Endorsement involves completion of 2 recommendations (*by animal managers at AZA-accredited facilities*), with approval via majority vote from the TAG Steering Committee. Endorsement will be renewed (via SC vote) every five years, on the same renewal cycle as (*and renewed prior to publication of*) the TAG's RCP.

For each consortium target species, identified by the TAG, there will be an appointed Species Champion. All consortium communication should include these Champions.

*Each Institutional Consortium member agrees to:*

1. Committing (*over the five-year span between RCP's*) appropriate space for the management of (*at a minimum*) 4.4 breeding adult birds of the target species (*yielding a total AZA population of at least 48 adults*);
2. Hold offspring/reserve flock, offering priority for placement at AZA institutions;
3. Track pedigree reliably, even if specific parentage (*in flocking species*) is not known, listing POTENTIAL parents for each offspring produced (*as some of the identified species may evolve to be Candidate Species in the future*);
4. Mark (*via leg band or transponder*) individual animals, to allow for individual tracking over time.
5. Send birds not essential for breeding to non-breeding exhibit institutions.

## Selected Species (*conservation status in parenthesis*) and Population Champions

### Warm Weather Species:

#### **Laysan teal (CR)**

*Sherry Branch, SeaWorld Orlando*

#### **Blue-winged goose (V)**

*Harrison Edell, Dallas Zoo*

#### **Philippine duck (V)**

*Keith Lovett, Buttonwood Park Zoo*

#### **Spotted whistling duck (LC)**

*Ian Shelly, Salisbury Zoo and Jamie Ries, Minnesota Zoo*

#### **Hartlaub's duck (LC)**

*Harrison Edell, Dallas Zoo*

#### **White-headed duck (E)**

*Stephanie Costelow, SeaWorld San Diego*



### Cold Weather Species:

#### **Scaly-sided merganser (E)**

*Chuck Cerbini, Toledo Zoo*

#### **Baer's pochard (CR)**

*Jamie Ries, Minnesota Zoo*

#### **Emperor goose (NT)**

*Mark Myers, Woodland Park Zoo*

#### **Falcated teal (NT)**

*Fred Beall, Zoo New England*

#### **Common (Pacific) eider (LC)**

*Mark Myers, Woodland Park Zoo*

#### **Lesser white-front goose (V)**

*Keith Lovett, Buttonwood Park Zoo*

# Cold Weather Species



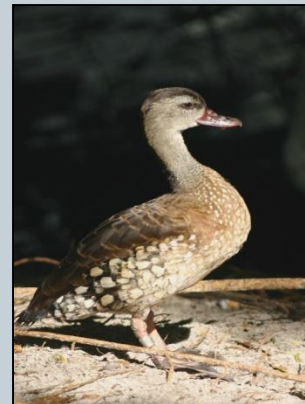
- Scaly-sided merganser (E)
- Baer's pochard (CR)
- Emperor goose (NT)
- Falcated duck (NT)
- Common (Pacific) eider (LC)
- Lesser white-fronted goose (V)



# Warm Weather Species



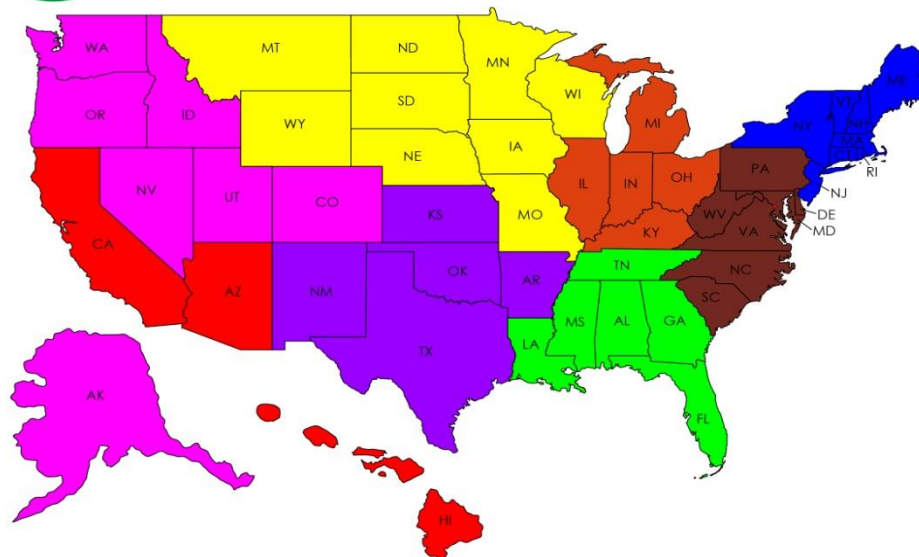
- Laysan teal (CR)
- Blue-winged goose (V)
- Philippine duck (V)
- Spotted whistling duck (LC)
- Hartlaub's duck (LC)
- White-headed duck (E)







## Anseriformes TAG Mentoring Program

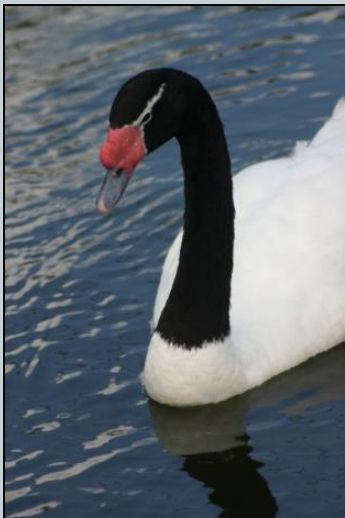
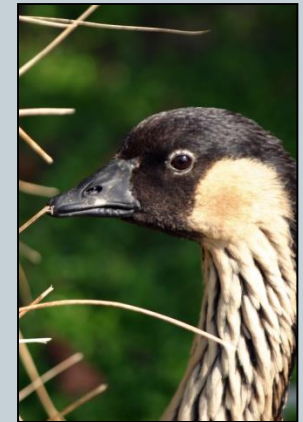


- **Keith Lovett** ----- Main, New Hampshire, Massachusetts, Rhode Island, Vermont,  
klovett@newbedford-ma.gov Connecticut, New York, New Jersey
- **Steve Sarro** ----- Maryland, West Virginia, Virginia, North Carolina, South Carolina,  
SarroS@si.edu Delaware, Pennsylvania
- **Sherry Branch** ----- Louisiana, Mississippi, Alabama, Georgia, Florida, Tennessee  
Sherry.Branch@SeaWorld.com
- **Chuck Cerbini** ----- Michigan, Illinois, Indiana, Ohio, Kentucky  
Chuck.Cerbini@ToledoZoo.org
- **Jamie Ries** ----- Wisconsin, Iowa, Missouri, Montana, Wyoming, North Dakota,  
Jamie.Ries@state.mn.us South Dakota, Nebraska, Minnesota
- **Harrison Edell** ----- Kansas, Oklahoma, Arkansas, Texas, New Mexico  
Harrison.Edell@dallaszoo.com
- **Mike Mace** ----- California, Arizona, Hawaii  
MMace@sandiegozoo.org
- **Mark Myers** ----- Colorado, Washington, Nevada, Oregon, Idaho, Utah, Alaska  
Mark.Myers@Zoo.org

# Education/ Mentoring Program



- Guidance
- Training
- Identifying spaces



# Identifying Spaces





# Identifying Spaces



# Revenue Generation



# Workshops, Husbandry Courses, and Internships

- Sylvan Heights Bird Park
- Pinola Conservancy
- Livingston Ripley Waterfowl Conservancy
- AZA





# Newsletter



# Zoo and Private Aviculture Partnership



*Sylvan Heights*  
Bird Park



## Other Associations

- EAZA
- ZAA
- SEAZA



# Cheerleading

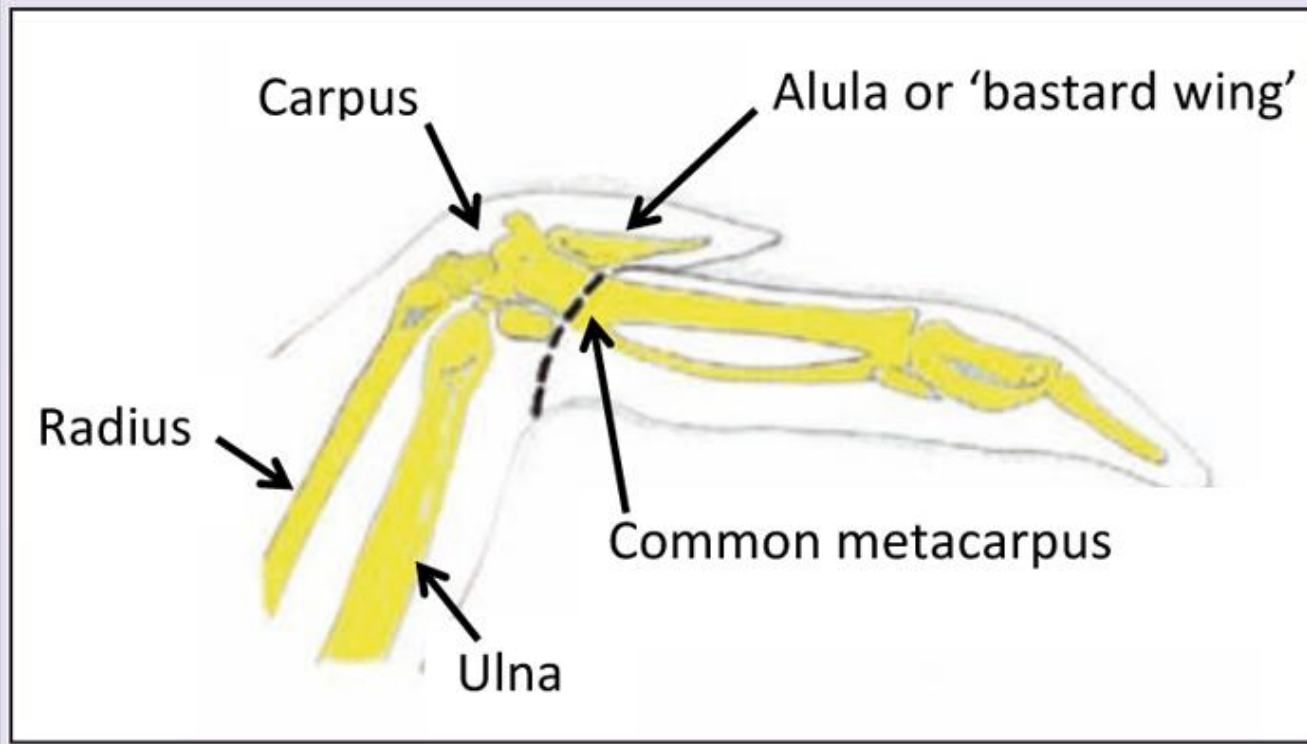




# Future Obstacles



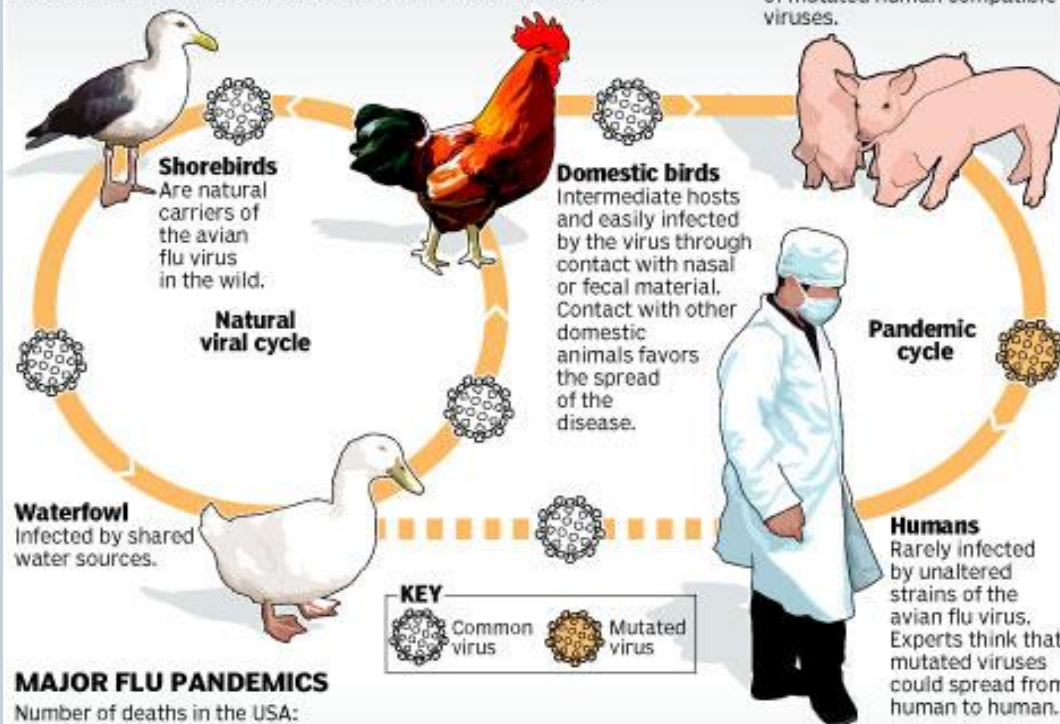
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# Disease

## THE NEXT PANDEMIC?

Although the H5N1 virus, known as the avian flu virus, does not usually infect humans, new mutated forms of this virus could represent a realistic risk of a flu pandemic, experts say.



## MAJOR FLU PANDEMICS

Number of deaths in the USA:



# Momentum

