

# Cervid (Deer) TAG

## **Chair- Michelle Hatwood**

General Curator- Audubon Species Survival Center  
(FMASSC)

mhatwood@auduboninstitute.org

w. 504.398.3153

c. 352.281.0394

## **Vice Chair- Stephen Castillo**

Curator- Disney's Animal Kingdom

steve.castillo@disney.com

w. 407.938.2335

## **Steering Committee**

Tony Fisher- Minnesota Zoo

Buddha Pukazhenthi- SCBI

Andrea DeMuth- Brookgreen  
Gardens

Allison Case- Northwest Trek  
Wildlife

Terry Lincoln- Dakota Zoo

Dan Beetem- The Wilds

Scott Stainback- Caldwell Zoo

Ashley Arimborgo- Cheyenne Mtn  
Zoo

Donna Doherty- Bronx Zoo

Steve Metzler- Dallas Zoo



# Cervid (Deer) TAG

## **Chair- Michelle Hatwood**

General Curator- Audubon Species Survival Center  
(FMASSC)

[mhatwood@auduboninstitute.org](mailto:mhatwood@auduboninstitute.org)

w. 504.398.3153

c. 352.281.0394

## **Vice Chair- Stephen Castillo**

Curator- Disney's Animal Kingdom

[steve.castillo@disney.com](mailto:steve.castillo@disney.com)

w. 407.938.2335



## **APM Committee Liaison- Jessica Hoffman**

[jhoffman@greensboroscience.org](mailto:jhoffman@greensboroscience.org)

## **URG Lead Advisors**

Veterinary- Dr. Meredith Clancy, SDZWA

[mclancy@sdzwa.org](mailto:mclancy@sdzwa.org)

Nutrition- Mike Maslanka, Smithsonian National  
Zoo & SCBI, [maslankam@si.edu](mailto:maslankam@si.edu)

Genetics- Dr. Andrea Putnam, SDZWA

[aputnam@sdzwa.org](mailto:aputnam@sdzwa.org)

Behavior & Ecology- Dr. Lara Metrione, SEZARC

[Lara.Metrione@sezarc.com](mailto:Lara.Metrione@sezarc.com)

Reproduction- Dr. Parker Pennington, SCBI

[parkerp513@gmail.com](mailto:parkerp513@gmail.com)

Management- Steve Metzler, Dallas Zoo

[steve.Metzler@dallaszoo.com](mailto:steve.Metzler@dallaszoo.com)

Field Conservation- Justin Chuyen, USFWS

[Justin\\_Chuyen@fws.gov](mailto:Justin_Chuyen@fws.gov)

Education- Leanne White, Jacksonville Zoo

[whitel@jacksonvillezoo.org](mailto:whitel@jacksonvillezoo.org)

# Publications

**Last RCP was in  
2020**

**Next RCP August  
2025**

**CERVID TAXON ADVISORY GROUP  
2020  
REGIONAL COLLECTION PLAN  
Fourth Edition**



**ASSOCIATION  
OF ZOOS &  
AQUARIUMS**

# Program Updates

## ► YELLOW PROGRAMS

- **Reeves' Muntjac (*Muntiacus reevesi*)**
  - ❖ **34.21.1 (56) @ 26 AZA institutions**
  - ❖ Elana Kopel  
Prospect Park Zoo  
ekopel@wcs.org
  
- **Tufted Deer (*Elaphodus cephalophus cephalophus*)**
  - ❖ **17.16 (33) @ 15 AZA institutions**
  - ❖ Elizabeth Johnson  
Naples Zoo  
ejohnson@napleszoo.org



Los Angeles Zoo



# Program Updates

## ► YELLOW PROGRAMS

- **Eld's Deer (*Rucervus eldii*)** ★
  - ❖ **Endangered**
  - ❖ 18.45 (63) @ 4 AZA institutions
  - ❖ Dolores Reed  
SCBI- Smithsonian  
reedm@si.edu
  
- **Barasingha (*Rucervus duvaucelii*)**
  - ❖ **Vulnerable**
  - ❖ 21.28.1 (50) @ 5 institutions
  - ❖ Matt Gelvin  
San Diego Zoo Safari Park  
mgelvin@sdzwa.org



Eld's deer- add to your collection plan now!



Audubon Species Survival Center

# Program Updates

## ► YELLOW PROGRAMS

- **Pere David's Deer (*Elaphurus davidianus*)**
  - ❖ Extinct in the Wild
  - ❖ 45.73.1 (119) @ 8 AZA institutions
  - ❖ Donna Doherty  
WCS- Bronx Zoo  
ddoherty@wcs.org

## ► RED PROGRAMS

- **Southern (Chilean) Pudu (*Pudu puda*)**
  - ❖ 21.19 (40) @ 13 AZA institutions
  - ❖ Near Threatened, decreasing population
  - ❖ Craig Gibbs  
Queens Zoo  
cgibbs@wcs.org
- **Greater Malayan Chevrotain (*Tragulus napu*)**
  - ❖ 9.14 (23) @ 7 AZA institutions
  - ❖ Least Concern
  - ❖ Hulya Khambatta  
Bronx Zoo  
hkhambatta@wcs.org



The Wilds, OH



Queens Zoo

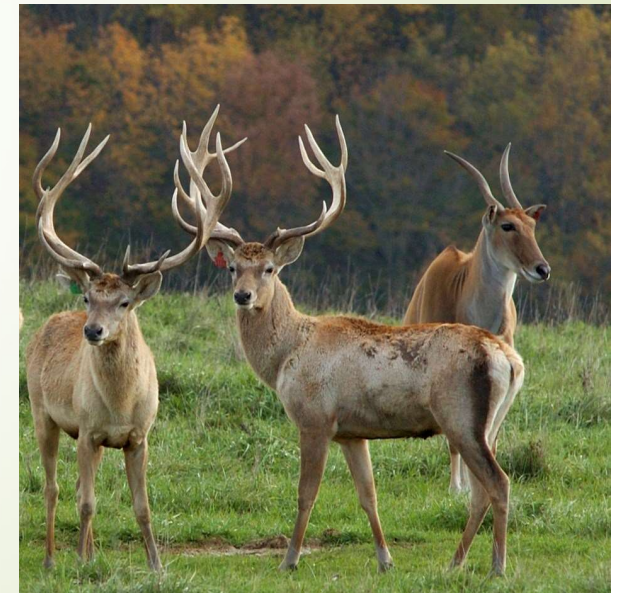


Milwaukee County Zoo

# Program Updates

## Registry/Monitored

- **Moose (*Alces alces*)**
  - ❖ 1.7 (8) @ 5 AZA institutions
  - ❖ Least Concern
  - ❖ Registry and International Liaison Vacant
  
- **White-lipped Deer (*Cervus albirostris*)**
  - ❖ 3.12 (15) @ 2 AZA institutions
  - ❖ **Vulnerable**
  - ❖ Alana Auwae- Registry  
Rosamond Gifford Zoo  
AlanaAuwae@ongov.net
  
- **Bactrian Wapiti (*Cervus hanglu bactrianus*)**
  - ❖ 50.49.3 (102) @ 3 AZA institutions
  - ❖ Least Concern at species level
  - ❖ Curt Coleman- Registry  
the Wilds  
ccoleman@theWilds.org



The Wilds, OH

# Where are we going next?

## Likely to Qualify as SSPs Moving Forward 15+ Current AZA Holders (2 Species)

Reeves' muntjac- currently **Yellow SSP** 26 AZA

Tufted deer- currently **Yellow SSP** 15 AZA



Photo credit: Brent Huffman

## Current SSP That Will Not Qualify as SSPs 12 Or Fewer AZA Holders (5 Species)

Eld's deer- currently **Yellow SSP** 4 AZA

Pere David's deer- currently **Yellow SSP** 8 AZA

Barasingha- currently **Red SSP** 5 AZA

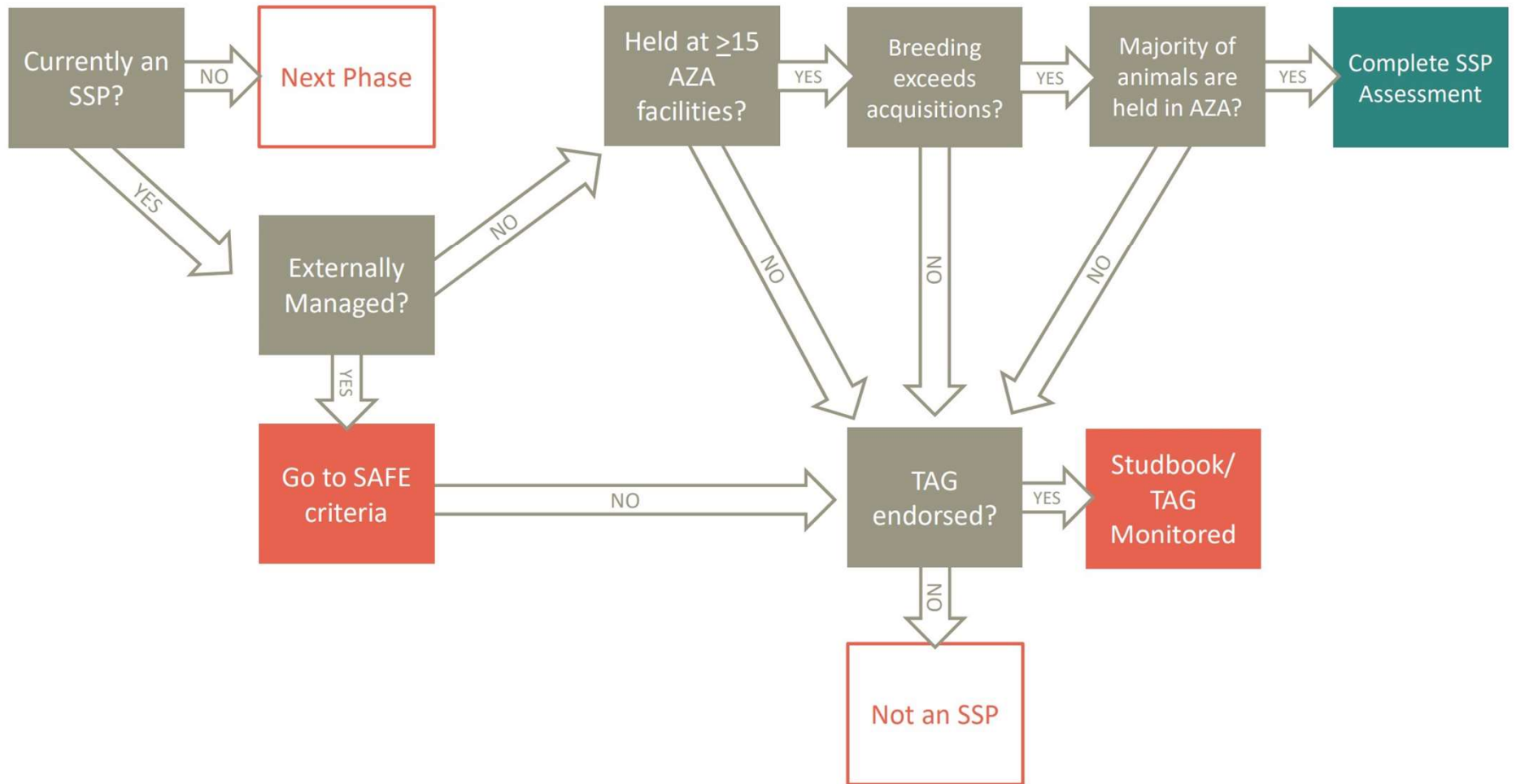
Southern Pudu- currently **Red SSP** 13 AZA

Malayan chevrotain- currently **Red SSP** 7 AZA



Photo credit: Meghan Murphy, Smithsonian's National Zoo





| Species   | AZA Facilities | Population       |
|---|----------------|------------------|
| Axis axis<br>Axis Deer/Spotted Deer/Chital  | 4              | 12.26 (38)       |
| Axis calamianensis<br>Calamian Deer   | 2              | 3.0 (3)          |
| Axis porcinus<br>Hog Deer   | 1              | 4.10 (14)        |
| Cervus canadensis ssp. (3 different ssp)<br>Wapiti or Elk                           | 23             | 46.103.3 (152)   |
| Cervus elaphus<br>Red Deer  | 8              | 30.99 (129)      |
| Cervus nippon<br>Sika Deer  | 7              | 9.19.6 (34)      |
| Dama dama<br>European Fallow Deer   | 5              | 117.226.52 (395) |
| Mazama gouazoubira<br>Brown Brocket   | 1              | 1.2 (3)          |
| Mazama temama<br>Central America Red Brocket  | 2              | 2.2 (4)          |
| Moschus moschiferus<br>Siberian Musk Deer   | 3              | 3.2 (5)          |
| Muntiacus muntjac<br>Indian Muntjac   | 3              | 5.1 (6)          |
| Muntiacus vaginalis<br>Northern Red Muntjac   | 3              | 3.5 (8)          |
| Odocoileus hemionus<br>Mule or Black-tailed Deer                                    | 7              | 6.37 (43)        |
| Odocoileus virginianus<br>White-tailed Deer   | 30             | 50.78.37 (165)   |
| Rangifer tarandus<br>Reindeer or Caribou<br>(includes all ssp. except R.t. caribou) | 24             | 11.36.1 (48)     |
| R. t. caribou<br>Woodland Caribou   | 3              | 3.7 (10)         |
| Rusa unicolor<br>Sambar Deer  | 2              | 11.13 (24)       |

**Species: 17**

**Total: 1,081**

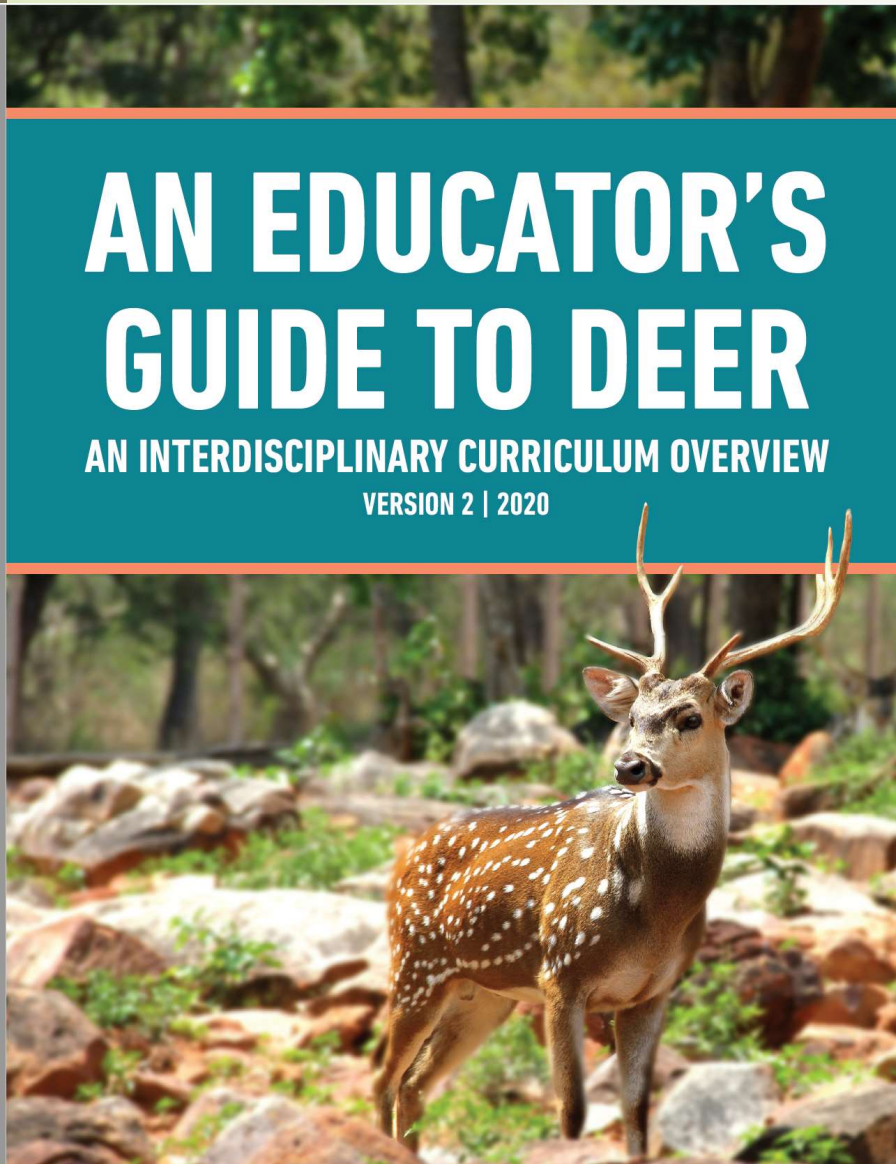
| Species   | AZA Facilities | Population       |
|---|----------------|------------------|
| Axis axis<br>Axis Deer/Spotted Deer/Chital  | 4              | 12.26 (38)       |
| Axis calamianensis<br>Calamian Deer   | 2              | 3.0 (3)          |
| Axis porcinus<br>Hog Deer   | 1              | 4.10 (14)        |
| Cervus canadensis ssp. (3 different ssp)<br>Wapiti or Elk                           | 23             | 46.103.3 (152)   |
| Cervus elaphus<br>Red Deer  | 8              | 30.99 (129)      |
| Cervus nippon<br>Sika Deer  | 7              | 9.19.6 (34)      |
| Dama dama<br>European Fallow Deer   | 5              | 117.226.52 (395) |
| Mazama gouazoubira<br>Brown Brocket   | 1              | 1.2 (3)          |
| Mazama temama<br>Central America Red Brocket  | 2              | 2.2 (4)          |
| Moschus moschiferus<br>Siberian Musk Deer   | 3              | 3.2 (5)          |
| Muntiacus muntjac<br>Indian Muntjac   | 3              | 5.1 (6)          |
| Muntiacus vaginalis<br>Northern Red Muntjac   | 3              | 3.5 (8)          |
| Odocoileus hemionus<br>Mule or Black-tailed Deer                                    | 7              | 6.37 (43)        |
| Odocoileus virginianus<br>White-tailed Deer   | 30             | 50.78.37 (165)   |
| Rangifer tarandus<br>Reindeer or Caribou<br>(includes all ssp. except R.t. caribou) | 24             | 11.36.1 (48)     |
| R. t. caribou<br>Woodland Caribou   | 3              | 3.7 (10)         |
| Rusa unicolor<br>Sambar Deer  | 2              | 11.13 (24)       |

**Species: 10**

**Total: 1,042**



# Publications



## Coming Soon!

### Great job!

**TAG Education advisor:**  
**Brian Ogle**

**Student editor:**  
**Maxwell Aaronson, Beacon College**

**Graphic Design Co-Collaboration by:**  
**Brittany Strozzo, Beacon College Instructor**  
**Sophia Pikus, Beacon College**



# 2022 Goals

## Husbandry & Exhibits

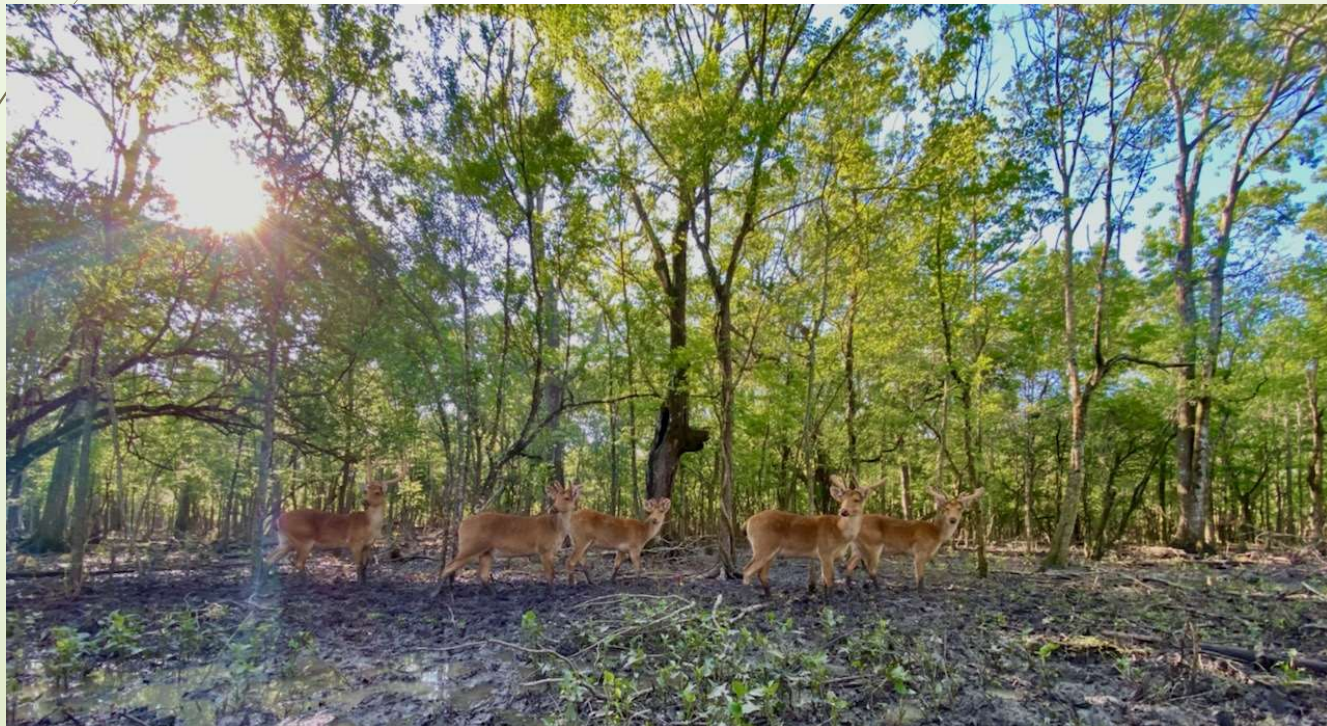
- Greatest husbandry & exhibit challenges
  - Fighting, male aggression, rut
  - Physical space too small or poor enclosure location
  - Flighty animals
  - Lack of management resources, such as holding pens, barns, tamers, etc.
  - Managing genetic diversity due to issues transferring deer

Cervid TAG will putting together  
husbandry management resource guidelines

# 2022 Goals

## Consortium/Monitored Program Recommendations

- Best practices framework/toolkit
- Studbook/Job description
- Institutional commitment form?



# Conservation

82 facilities responded to the 2020 RCP survey

- 63 of those hold at least one deer species

## Conservation & Research

- 7% of respondents (6 out of 82) are involved in some type of deer conservation or research. Most are native N. Am. deer projects.
- Priority of TAG to push new (and old) conservation and research initiatives.

- Eld's Deer
- Chilean Pudu
- Large-antlered Muntjac
- Visayan Spotted Deer  
([www.talarak.org](http://www.talarak.org))



Large-antlered muntjac

(c) Leibniz-IZW / SIE / Bidoup Nui Ba NP

# What you can you do?

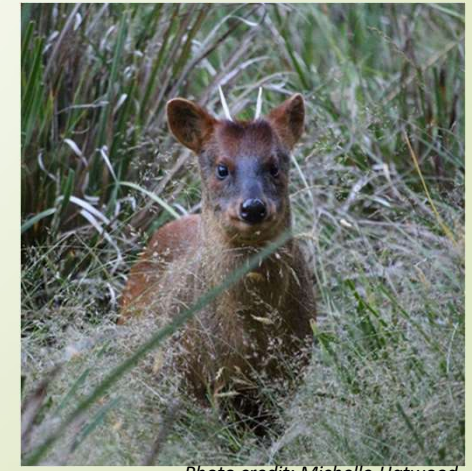
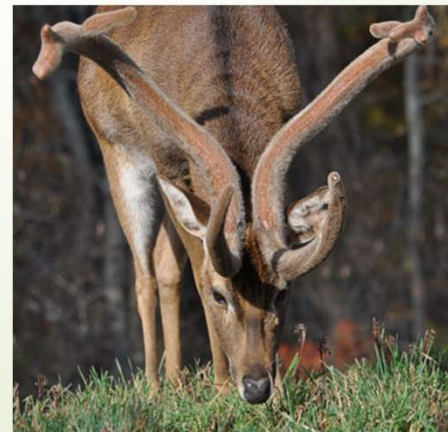
**Add Deer to your  
collection plan!!**

**Support Conservation  
and  
Research Projects**

- ▶ Know your Chronic Wasting Disease State import regulations
- ▶ Talk to your State vet about CWD regulations for exotics
- ▶ Monitor current cervid collection animals for CWD



*Photo credit: Brent Huffman*



*Photo credit: Michelle Hatwood*



# Cervid (Deer) TAG

## **Chair- Michelle Hatwood**

General Curator- Audubon Species Survival Center  
(FMASSC)

mhatwood@auduboninstitute.org

w. 504.398.3153

c. 352.281.0394

## **Vice Chair- Stephen Castillo**

Curator- Disney's Animal Kingdom

steve.castillo@disney.com

w. 407.938.2335

## **Steering Committee**

Tony Fisher- Minnesota Zoo

Buddha Pukazhenthil- SCBI

Andrea DeMuth- Brookgreen  
Gardens

Allison Case- Northwest Trek  
Wildlife

Terry Lincoln- Dakota Zoo

Dan Beetem- The Wilds

Scott Stainback- Caldwell Zoo

Ashley Arimborgo- Cheyenne Mtn  
Zoo

Donna Doherty- Bronx Zoo

Steve Metzler- Dallas Zoo

