



2023 Midyear Meeting Program Updates

AZA Deer & Caprinae TAG

Chair, Michelle Hatwood,

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Armenian Mouflon (*Ovis gmelini gmelinii*)

2023

- Previous Program Designation: **Studbook**
- New Program Designation: **No program**
- **5.14 (19)**
 - 1.1 (2) in 1 AZA facility
 - 4.13 (17) in 1 non-AZA facility
- **Near threatened** – wild population trend unknown
- **Challenges that affect program:**
 - Limited number of animals and institutions participating
 - Limited gene diversity
- **What can you do to help this program improve?**
 - This species is unlikely to continue in AZA unless an institution is very interested in taking it on. New genetics would need to be added to the population for long-term sustainability, but would likely need import out of Asia.
 - Possible pure animals may be found in private sector, but genetics would need to confirm



Theodore Campbell
Rosamond Gifford Zoo
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Bactrian wapiti (*Cervus hanglu bactrianus*)

2023

- Previous program designation: **Studbook**
- New program designation: **No program**
- **53.56.3 (112) at 3 AZA facilities**
 - 13 births in 2022!!
- **Least Concern** Wild population trend increasing (2017)
- **Program challenges:**
 - Limited interest in zoos- competition with other large deer species
 - Limited gene diversity
- **What you can do to help this program:**
 - When looking for Asian species for exhibit consider this species.
- **Other interesting tib-bit of info:**
 - They cohabit very well with a wide range of hoofstock and pachyderm species.



Curt Coleman

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Cody Cseplo

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The Wilds, Ohio

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Barasingha (*Rucervus duvaucelii*)

2023

- Previous program designation: **Yellow SSP**
- New Program designation: **Studbook**
- **20.29 (49)**
 - **20.29 (49) in 4 AZA**
- **Vulnerable** – wild population ↓
- **Challenges that affect program:**
 - Lack of space - more holders needed. Direct competition with Eld's deer species, which is more endangered.
 - Chronic wasting disease sometimes restricts movement into some states.
- **What can you do to help program & improve sustainability?**
 - Consider Barasingha and Eld's deer to see what fits your situation best.
 - Reach out to your state vet about importing deer. Barasingha are *Rucervus* genus, and some states only care about *Cervus*. Some states also exempt AZA zoos from CWD import restrictions. Ask TAG for help if needed.
 - Build deer exhibits with extra holding for offspring and ratty males.



Matt Gelvin
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Chinese Goral (*Naemorhedus griseus*) 2023

- Previous program designation: **Red Program**
- New program designation: **Studbook**
- **9.15 (24) in 8 AZA institutions**
- **Vulnerable** – wild population ↓
- **Program challenges:**
 - Breeding success
 - Demographics
 - Low genetic diversity
- **What can you do to help program & improve sustainability?**
 - Continue prioritizing breeding recommendations. There are facilities that are interested in offspring, but there are rarely animals available.
 - Continue in collection planning and build holding space for offspring to help increase available animals to send out for institutional needs.

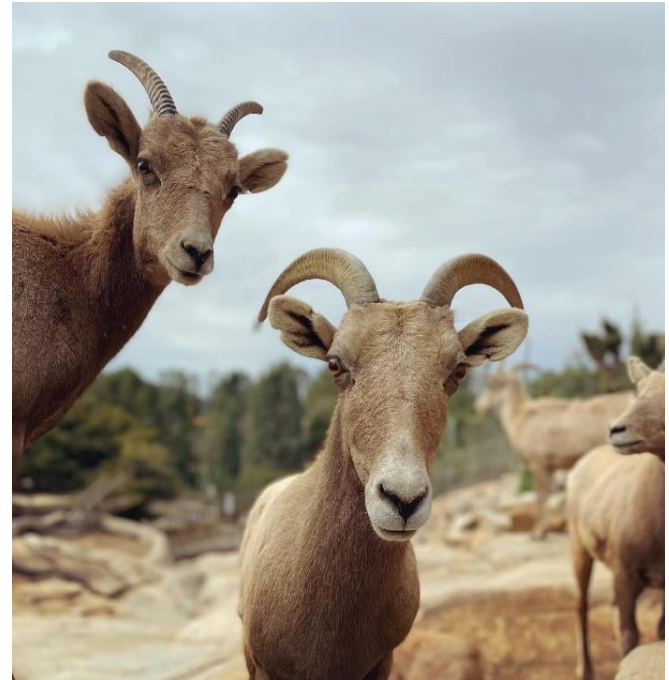


Sergey Chichagov

Gil Myers
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Desert Bighorn Sheep (*Ovis canadensis*) 2023

- Previous program designation: **Yellow SSP**
- New program designation: **Studbook**
- **34.46 (80) at 6 AZA and 3 non-AZA institutions**
 - 11 births in 2022!
- **Least Concern**- wild population trend stable
- **Program challenges**
 - Limited intact male housing
 - Habitat and climate specific animals, limiting holders
- **What can you do to help program & improve sustainability?**
 - Build new exhibits or upgrade current exhibits with extra holding for offspring and intact males
 - Follow program recommendations for population management and animal transfers.
 - Maintain good communication with program leader and other holders.



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Eld's Deer (*Rucervus Eldii Thamin*)

2023

- Previous program designation: **Yellow SSP**
- New program designation: **Studbook**
- **18.40 (58) in 3 AZA institutions**
 - Population declining slightly, only one institution currently breeding.
- **Endangered**, wild population declining as of last assessment (2014)
- **Program challenges:**
 - limited genetic diversity
 - Not enough male management/holding spaces
 - Lack of interest in exhibition
 - Chronic wasting disease sometimes restricts movement into some states.
- **What can you do to help program & improve sustainability?**
 - This is the priority large deer species within the TAG due to conservation status and research opportunities. Please consider adding this species to your collection and future Asian themed regions. This species can work well in mixed species exhibits.
 - Reach out to your state vet about importing deer. Eld's deer are *Rucervus* genus, and some states only care about *Cervus*. Some states also exempt AZA zoos from CWD import restrictions. Ask TAG for help if needed.
 - Build deer exhibits with extra holding for offspring and ruddy males.



Dolores Reed
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Malayan Chevrotain (*Tragulus napu*)

2023

- Previous program designation: **Red Program**
- New program designation: **Studbook**
- **8.15.1 (24) at 8 Institutions**
 - zoo population ↓
- **Least concern** - wild population ↓
- **Challenges that adversely affect program:**
 - New genetics required
 - Lack of holding spaces for offspring
 - Low interest from institutions
- **What can you do to help program & improve sustainability?**
 - Add this species to your collection, spread the word. Almost every zoo has a space they can put them. The holding area footprint is much smaller than typical hoofstock.
 - Advocate for mixed species exhibit opportunities (birds, primates, turtles). Check your bird aviaries- can you add these in? They do great in small habitats.

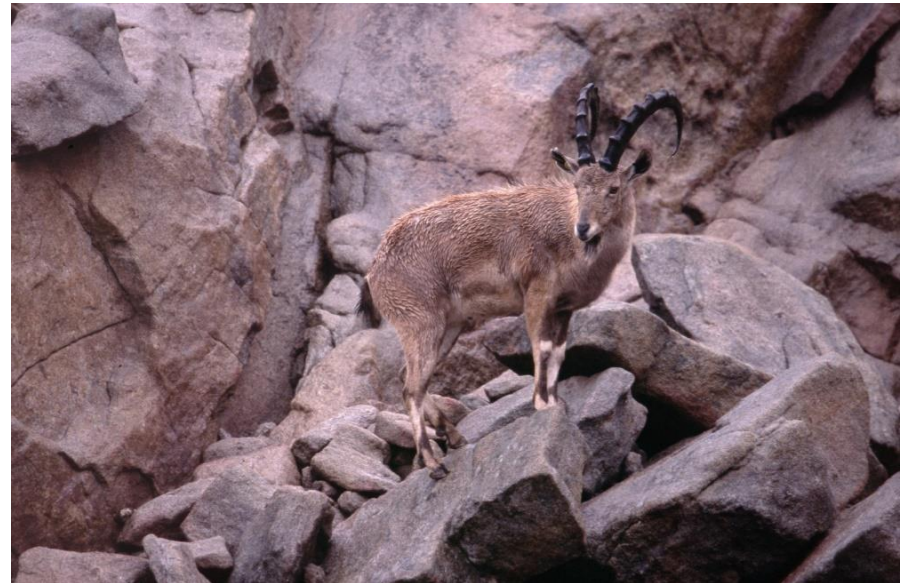


Hulya Khambatta
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Nubian ibex (*Nubiana ibex*)

2023

- Previous program designation: **Yellow SSP**
- New program designation: **Studbook**
- **29.27 (56) in 3 AZA facilities/4 non-AZA**
 - 10.8 (18) in 3 AZA facilities
 - 19.19 (38) in 4 non-AZA facilities
- **Vulnerable**— wild population declining
- **Challenges that affect program:**
 - limited gene diversity
 - Limited interest in the species
- **What can you do to help program & improve sustainability?**
 - Increase interest in caprid species through repurposed exhibits, new exhibits, or mixed species. Add these to your collection! They are impressive exhibit animals.
 - Increase current holding or create extra holding space in new exhibits for offspring and males.



Ashley Arimborgo
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Père David's deer (*Elaphurus davidianus*)

2023

- Previous program designation: **Yellow SSP**
- New program designation: **Studbook**
- **47.79.3 (129) in 8 AZA institutions**
 - Soon to be 9 institutions again
- **Extinct in the wild**
- **Challenges that affect program:**
 - Lack genetic diversity
 - Need more institutions to hold animals
 - Need more holding space for offspring and intact males
 - Chronic wasting disease sometimes restricts movement into some states.
- **What can you do to help program & improve sustainability?**
 - Reach out to your state vet about importing deer. Père David's deer are *Elaphurus* genus, and some states only care about *Cervus*. Some states also exempt AZA zoos from CWD import restrictions. Ask TAG for help if needed.
 - Build deer exhibits with extra holding for offspring and rutty males.
 - These animals love the water and are cold tolerant.

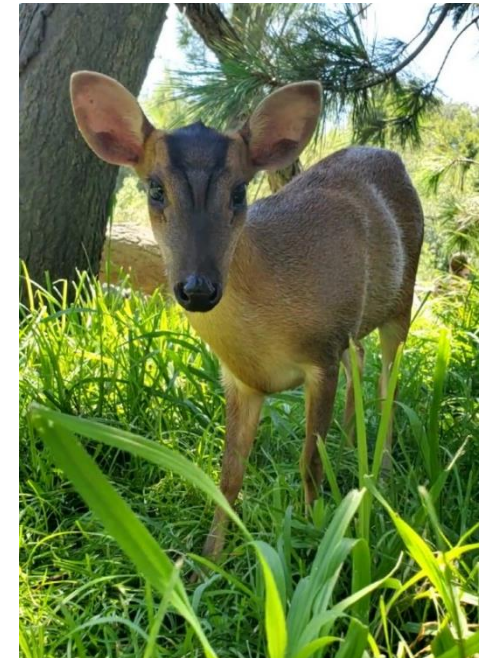


Donna Doherty
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Reeves' Muntjac (*Muntiacus reevesi*)

2023

- Previous program designation: **Yellow SSP**
- New program designation: **Provisional SSP**
- **74 (35.33.6) at 29 institutions**
 - **56 (32.24) at 25 AZA institutions**
 - **18 (3.9.6) at 4 non- AZA institutions**
- **Least concern-** wild population decreasing.
- **Program challenges**
 - Unknown pedigree
 - lack of breeding- first B&T Plan completed in 2022, so this will hopefully improve
 - need to import on a regular basis to increase genetic diversity
 - need a few more institutions
- **What can you do to help program & improve sustainability?**
 - Identify private sources for additional animals
 - Encourage holders follow breeding recommendations
 - Build deer exhibits with extra holding for offspring and intact males.
 - Two of the top three breeding zoos have muntjac housed with Red Panda, so consider mixed species spaces.



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Rocky Mountain goat (*Oreamnos americanus*) 2023

- Previous program designation: **Candidate**
- New program designation: **Studbook**
- **13.24.1 (38) in 11 institutions**
 - **8.21.1 (30) in 8 AZA institutions**
 - **5.3 (8) in 3 non-AZA institutions**
- **Least Concern** – wild population stable
- **Program challenges**
 - Holders are likely at or nearing capacity
- **What can you do to help program & improve sustainability?**
 - Program leader will be sending a space survey out soon to determine population capacity. Holders should fill out survey completely and accurately in a timely manner to help expedite the process. Thank you.



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Sichuan Takin (*Budorcas taxicolor tibetana*) 2023

- Previous program designation: **Yellow SSP**
- New program designation: **Signature SSP**
- **71.87.3 (161) in 28 institutions**
 - **43.62.0 (106) in 19 AZA institutions**
 - **28.25.3 (56) in 9 Non-AZA institutions**
- **Vulnerable** – wild population ↓
- **Program challenges**
 - Large portion of population in Non-AZA/Non-sustainability partner facilities
 - Costs associated with modifying old exhibits/shipping takin
- **What can you do to help program & improve sustainability?**
 - Add takin to your future collection plan
 - Build new exhibits with holding for offspring and intact males to help sustainability of the population in AZA
 - Cold hardy



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Southern/Chilean Pudu (*Pudu puda*)

2023

- Previous program designation: **Red Program**
- New program designation: **Provisional SSP**
- **17.18.1 (36) in 15 institutions**
 - **17.16.1 in 14 AZA institutions**
 - **0.2 in 1 non-AZA Zoo**
- **Near Threatened-** wild population decreasing
- **Program challenges**
 - High infant mortality
 - Limited gene diversity, need new founders
 - High number of males (9) are outside U.S. border and unavailable because of import issues.
 - Institutions want to join, but animal availability is slow to increase
- **What can you do to help program & improve sustainability?**
 - Participation in mortality study- see recent email sent out by Program Leader
 - Breed, breed, breed! If you have multiple females and only one male, move the male between the females to breed both. All females should be in a breeding situation. If you have females with no male, discuss getting a loaner stud for breeding with SSP.
 - If you have a male(s), discuss a short-term loan to stud out your male for a short period of time once your females are pregnant. This would be a huge help to the population.
 - Research imports of AZA males outside US border
 - Participate in future *in-situ* conservation efforts to aid future imports
 - This species does very well in mixed exhibits. Please share successes as we are continuing to expand the list of species pudu can be exhibited with.



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Tajik Markhor (*Capra Falconeri Heptneri*)

2023

- Previous program designation: **Yellow SSP**
- New program designation: **Studbook**
- **42.70.1 (113) in 14 Institutions**
 - **21.30 in 7 AZA institutions**
 - **21.40.1 in 7 non-AZA institutions**
- **Near Threatened** – wild population stable
- **Program challenges**
 - Lack of male holding facilities
 - Compliance with B&T recommendations
- **What can you do to help program & improve sustainability?**
 - Work more with responsible non-AZA institutions. Communicate with fellow AZA holders on approved non-AZA collaborators.
 - Increase number of facilities holding bachelor groups
 - Build new exhibits with holding for offspring and intact males to help sustainability of the population in AZA
 - Support conservation projects in range countries



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Transcaspiian Urial (*Ovis vignei arkal*)

2023

- Previous program designation: **Red Program**
- New program designation: **Studbook**
- **10.21 (31) at 4 AZA institutions**
- **Vulnerable** – Decreasing wild population
- **Program challenges**
 - Lack of genetic diversity
 - Institutions will need to champion this species if it is to grow within AZA. More holders area needed.
- **What can you do to help program & improve sustainability?**
 - Looking for a big curled-horned sheep?
Consider the urial as an option in your collection plan.



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Western Tufted Deer (*Elaphodus cephalophus*) 2023

- Previous program designation: **Red Program**
- New program designation: **Provisional SSP**
- **21.15 (36) at 18 institutions**
 - **17.15 (32) at 15 AZA institutions**
 - **4.0 (4) at 2 non-AZA institutions**
- **Near Threatened**
 - Population trend in the wild is decreasing due to hunting by locals; although data is lacking it is suspected that a high level of harvesting is taking place and contributing to the decreasing population
 - Population trend in AZA zoos is also declining; no births in 2022; 4 births in 2021
- **Current Program Challenges**
 - Deaths are outpacing births
 - Aging reproductive female population
 - Not enough deer to give new facilities that want to join the program
- **What can you do to help program & improve sustainability?**
 - Breed, breed, breed! If you have tufted deer, we need them to breed. Check the most recent B&T Plan. Are you following it? Have you had offspring in the last year? Set this as a priority. Contact the SSP with any questions.
 - They are great in mixed species habitats!! Great guest appeal due to their unique appearance!



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White lipped Deer (*Cervus albirostris*)

2023

- Previous program designation: **Studbook**
- New program designation: **No program**
- **7.10 in 4 institutions**
 - **2.8 (10) in 2 AZA facilities**
 - **5.2 (7) in 2 non-AZA facility**
- **Vulnerable-** Wild population trend unknown
 - Last data assessment in 2014 estimated a 30% decline over the last 3 generations
- **Program challenges**
 - Unsustainable population size within US
 - Lack of genetic diversity
 - Increased infant mortality
- **What can you do to help program & improve sustainability?**
 - Support research and conservation within the Tibetan Plateau
 - This species will be continued by holding institutions until captive extinction, you can call Alana Auwae with any questions. Any AZA facilities that want to continue the species would need to import new genetically diverse individuals for long-term sustainability.



Alana Auwae
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AZA Hippo, Peccary, Pig & Tapir TAG

Chair, Martin Ramirez,
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Malayan (Asian) Tapir

- **Signature SSP (Target pop. 58)**
- 22.24 (46) at 16 institutions.
 - 15.16 (31) at 14 AZA institutions.
 - 6.7 (13) CCTU
 - 1.1 (2) Rutledge
- **Adding 2 AZA institutions in 2023**
 - 1 pending transport
 - 1 finishing construction
- **Adding 1 AZA institution in 2+ years.**

Challenges

- No successful births in 2022.
 - Breeding/ introductions delayed by transports/ construction.
- Additional spaces needed.
- Importing new founder animals is challenging.
- Population includes many aging animals.

Need to increase successful births.

Need to increase participating institutions.

Identify institution willing to import.



Program Contact:
Ivy Brower
Zoo Miami
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Malayan tapir are a charming and unique Asian ungulate that can be housed successfully with a variety of taxa including primates, pigs and birds. They can also provide great guest engagement opportunities.

Red River Hog

- 90.103.5 (198)
 - 122 in 42 AZA institutions
 - 76 in 25 non-AZA institutions
- Provisional SSP- zoo population ↓
 - Low birthrate over the last few breeding seasons. Increased birth rate and could lead to Signature SSP status
- Least Concern - wild population ↓
- Needs:
 - Increased breeding success over paired individuals
 - Additional holders
 - Look at moving valuable non-breeders next breeding/transfer plan to increase chances of successful breeding and bring genetic diversity



Program Leader/Studbook Keeper

- Mel Hall
Disney's Animal Science and Environment
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Common Warthog/ Provisional SSP

- 34.46.0 (80) @ 32 AZA institutions
- **Provisional SSP** (old designation: Yellow SSP) – zoo population decreasing
- **IUCN status – Least Concern, stable**
- **Breeding and Transfer Plan published 27 January 2023**
- **Challenges that adversely affect program:**
 - Only 11% of Breeding recs attempted from 2019 plan
 - Holding of offspring past 1 yr. makes space a challenge and makes institutions not want to breed.
 - Deaths and exports to non-AZA facilities exceeding births at AZA facilities
- **What Institutions can do to help program & improve sustainability?**
 - Increase holding capacity when building new or renovating exhibits/holding areas
 - Do not export animals from population without talking to SSP Coordinator



- Program Leader
- Lisa Smith
 - Buffalo Zoo
 - lsmith@buffalozoo.org
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Chacoan peccary

- 48.56.0 (104) at 24 AZA Zoos and 1 ZAA
- Provisional SSP ↑
- Endangered - **wild population ↓**
- Challenges that affect this program:
Additional funding sources needed for CCCI and an import.
- What can TAG do to help program & improve sustainability?
 - Encourage more institutions to work with this low maintenance and charismatic endangered species.



Brent Huffman

Program Leader

- Jim Haigwood
- Jhaigwood@sdzwa.org
- (760) 705-6543

Pygmy Hippopotamus

- 31.71.20(122) in 16 organizations
 - 15 AZA organizations
 - 1 Sustainability Partner
- Signature SSP - planned slow growth
- Endangered – wild population ↓
- Last two years:
 - Still a female-biased sex ratio, which parallels Europe and Asia.
 - Recommended 8 existing pairs in 2021 B & T plan
 - 3 new AZA zoos joined the SSP as breeding facilities



Program Leader

- Christie Eddie – SSP Coordinator and Studbook Keeper
- Omaha's Henry Doorly Zoo and Aquarium
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- 402-557-6932

Babirusa

- 29.39 animals in 18 institutions
- **Provisional SSP**
- Endangered/Threatened – wild population decreasing due to illegal hunting and habitat loss.
- GSMP program working with Action Indonesia. All holders encouraged to support the program.
- We are actively seeking new institutions to join the program.
- Babirusa are a wonderful species to work with. They are a hit with staff and guests.
- Babirusa mix well with other species, both ANIMALS and PLANTS.



Program Leader/Studbook Keeper

Joe Forys

Audubon Zoo

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River Hippo (*Hippopotamus amphibius*)

2023

- Previous program designation: Yellow SSP
- New program designation: Signature SSP
- Population & number of institutions:
 - 36.65.0 (28 AZA & 5 non-AZA)
- IUCN designation and population trend:
 - Vulnerable, population is stable
- Program challenges:
 - Facilities being able to hold more than same sex pairs
 - Facilities being able to hold male offspring or bachelor herds
 - Several animals in the SSP have unknown pedigrees
- What you can do to help this program:
 - Consider holding larger herds
 - Consider holding bachelor pairs/groups if not a breeding institution
- Optional other interesting tib-bits of info:
 - Hippos make great guest interaction experiences



Name of program contact: Kristen Wolfe
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AZA Antelope, Cattle, Giraffid & Camelid (ACGC) TAG Chair, Vacant

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Okapi (*Okapia johnstoni*)

2023

- Previous program designation: Yellow SSP
- New program designation: Provisional SSP
- Population & number of institutions
 - SSP – 45.36 (81) in 25 inst.
 - Japan, UAE – 11.7 (18) in 5 inst.
 - EEP- 38.41 (79) in 26 inst.
 - Global – 94.84 (178) in 69 inst.**
- IUCN designation and population trend
 - Endangered, Declining
- Program challenges
 - Health issues (heart, kidney, seizures of unknown cause)
 - Male birth trend (16.6 births since 2019)
 - Females not being bred – not enough births to replace the population
- What you can do to help this program
 - Breed all females possible!
 - Hold males
 - Be patient until females are available



Name of program contact: Steve Shurter
Institution: White Oak Conservation
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Phone: 904 225 3386

Photo – Antwerp Zoo

Masai Giraffe (*Giraffa camelopardalis tippelskirchi*) 2023

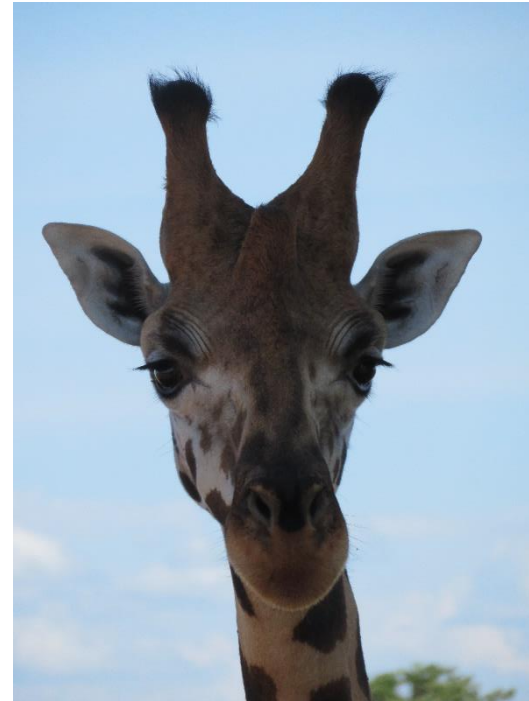
- Previous program designation: Yellow SSP
 - New program designation: Signature SSP
 - Population & number of institutions (AZA & non-AZA): 59.73; 33 institutions
 - IUCN designation and population trend: Vulnerable and decreasing
 - Program challenges: Place to hold males, more holders
 - What you can do to help this program: volunteer to hold bachelor herd!
 - Optional other interesting tib-bits of info:
-
- Recruiting for a new SSP coordinator soon!



Mike Murray
Detroit Zoological Society
murray52@gmail.com

Generic Giraffe (*Giraffa camelopardalis*)

- Previous program designation: **Green SSP**
- New program designation: **Signature SSP**
- Population & number of institutions (AZA & non-AZA):
 - **388 animals among 81 AZA facilities.**
 - **USDA reports 804 total registered, so 406 non-AZA**
- IUCN designation and population trend- **Vulnerable**
- Program challenges
 - **Limited holding capacity for genetically over-represented males**
 - **Continuing to breed animals excluded because of unknown pedigree**
- What you can do to help this program
 - **Follow SSP breeding & transfer recs to the best of your ability**
- Optional other interesting tib-bits of info
 - **More recent studies are showing 4 separate species vs. 9 sub species**



Name of program contact: Amy Schilz
Institution: Cheyenne Mountain Zoo
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Phone:

Arabian Oryx (*Oryx leucoryx*)

2023

- Previous program designation: **Yellow SSP**
- New program designation: **International Studbook**
- 10.37 (47) at 6 AZA, 8.16 (24) at 2 non-AZA
- IUCN designation and population trend: **Vulnerable, stable**
- **Program challenges**
 - Interest in the Arabian Oryx species has decreased significantly since the IUCN designation has been downgraded and populations in the Middle East have stabilized.
 - More holders are needed to continue keeping this species in the U.S.
 - Middle East does not fall into many geographical niches in zoos
- **What you can do to help this program**
 - New interested holders should create enough holding to house at least 3 adult males, as this species does not do well in bachelor groups. Current holders are encouraged to hold up to 3 adult males, or build more holding space. Male holding has decreased in the last 10 years; with only 6 facilities, this species can not continue long-term with only 6 males in the SSP.
 - Geographical niches: Desert habitats, or add to an Asian geographical zone for added interest.
- **Other interesting facts**
 - The Arabian oryx is a major “why zoos exist” success story that will can be easily told at your zoo.
 - Public interest- Arabian oryx are very vocal and are very active with enrichment



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Sitatunga (*Tragelaphus spekii*)

2023

- **Previous program designation:**
Yellow Program
- **New program designation:**
Studbook/Consider Consortium
Management
- **Population & number of institutions:**
9.47.0 (56) in 9 AZA institutions
14.30.4 (48) in 3 non-AZA institutions
- **IUCN Least Concern – wild population ↓**
- **Program challenges:**
 - Placement of male offspring-more bachelor groups needed
 - Low genetic diversity
- **What holders can do to help program?**
 - Do not phase out of collection plans
 - Participate in developing future consortium



The Maryland Zoo

Program Contact

- Gil Myers
 - Smithsonian's National Zoo and Conservation Biology Institute
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 - 202-633-4189

Thomson's gazelle 2023

- 58.114 (172) in 16 institutions (9 AZA)
- TAG Monitored
- **Near threatened – wild population ↓**
- Challenges that affect program:
 - Males need to be removed from breeding herds before 1 year of age.
- What can TAG do to help program & improve sustainability?
 - Encourage institutions to rotate breeding males.
 - Encourage bachelor groups.



- Program Leader
- Matt Gelvin
- San Diego Zoo Safari Park
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- 760-622-5026

Fringe-eared oryx (*Oryx beisa callotis*)

2023

- Previous program designation: TAG Monitored
- New program designation: TAG Monitored
- Population & number of institutions: 3 AZA 30(7.23) & 3 non-AZA 23(9.14))
- IUCN designation: Vulnerable
- Population trend: Decreasing
- Program challenges
 - Lack of space in AZA – more holders needed, but spaces should be prioritized for priority species
 - New genetics required for sustainability
 - Need to increase the population size
 - Multiple males in AZA are sterilized due to lack of space and inability to ship due to Covid
- What you can do to help this program
 - Support relationships with non AZA facilities



Name of program contact: Lissa McCaffree
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Gemsbok (*Oryx gazella gazella*)

2023

- Previous program designation: Yellow SSP
- New program designation: TAG monitored
- Population & number of institutions: 4 AZA 42(6.36) 5 Non AZA 26 (10.16)
- IUCN designation: Least Concern
Population trend: Stable
- Program challenges
 - Lack of space - more holders needed
 - A number of males were moved out of the SSP during COVID due to funding and reduced breeding
 - Need for rotating breeding males at each institution
- What you can do to help this program
 - Work with non AZA holders to import males
 - Encourage existing AZA holders to continue breeding as assurance population.



Name of program contact: Lissa McCaffree
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American Bison (*Bison bison*)

2023

- Previous program designation: Regional studbook and Candidate program
- New program designation: Studbook, potential SAFE program
- Around 45 AZA institutions
 - Multiple private facilities and partners
 - only 3-5 AZA breeding facilities that are not associated with partnerships
- IUCN designation and population trend
 - Red List – Near Threatened
 - Green List – Critically Depleted
- Program challenges
 - Not many breeding facilities in AZA that are not partnering – less access animals
 - PZP may be affecting breeding, more research is needed
 - What to do with surplus males
- What you can do to help this program
 - Continue genetic testing with bison
- Optional other interesting tid-bits of info
 - 2026 is our 10 year anniversary of Bison being our National Mammal



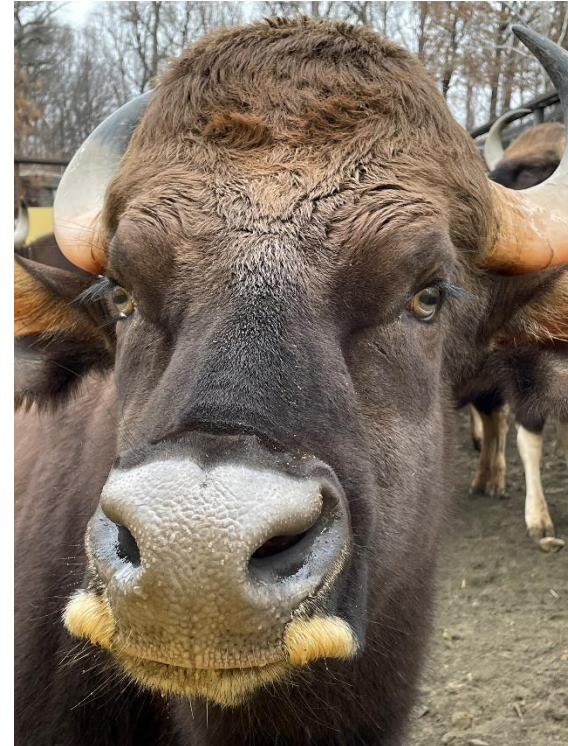
Photo by: Jennifer Jacobsen

Studbook Keeper:
Mollye Nardi, Birmingham Zoo
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mnardi@birminghamzoo.com

Gaur (*Bos gaurus*)

2023

- Previous program designation: Phase Out
- New program designation: Phase Out
- Population & number of institutions: 26.23 at 2 AZA facilities (17 castrated males)
- IUCN Vulnerable, population decreasing
- Program challenged by lack of institutional interest
- Unknown number of animals in the private sector



Donna Doherty
Wildlife Conservation Society/ Bronx Zoo
ddoherty@wcs.org
718-220-5162

Banteng (*Bos javanicus*) 2023

- Previous program designation: Red SSP/GSMP
- New program designation: GSMP/studbook
- *11.26 (37) in 6 Institutions, additional animals in non-AZA facilities
- GSMP- zoo population stable
- IUCN Endangered– wild population declining

- Challenges that adversely affect program:
 - New institutions needed
 - Not enough holders for intact males

- What TAG or Institutions can do to help program & improve sustainability?
 - Encourage institutions to work with this species, support the GSMP
 - Encourage institutions to form a consortium to support the NA population



Studbook Keeper

- Curt Coleman
- The Wilds
- ccoleman@thewilds.org

African Savannah Buffalo (*Syncerus caffer*)

2023

- Previous program designation:
Monitored population
- New program designation: Studbook
- Population & number of institutions (AZA & non-AZA)
 - 121 Buffalo (50.68.3)
 - 14 Institutions (4 AZA, 10 non-AZA)
- IUCN designation and population trend
 - Near Threatened and decreasing
- Program challenges
 - Space and interest
- What you can do to help this program
 - Consider this cold hardy species for your Africa exhibit
 - Great species to fill old rhino exhibits
- Other interesting information:
 - Smart and easily trainable- have been trained for voluntary injections, shape differentiation, station training
 - One of the “Big 5”- interesting species to talk about with voting structure and intelligence



Studbook Keeper:
Jordan Schimming, Denver Zoo
720-337-1614
jschimming@denverzoo.org

Anoa (*Bubalus depressicornis*)

2023

- Previous program designation: **Red SSP** and regional studbook, GSMP
- New program designation: Studbook, GSMP
- Population & number of institutions (AZA & non-AZA)
 - Population: 165 (74.91.0)
 - 10 facilities (5 AZA; 5 non-AZA)
- IUCN designation and population trend
 - Endangered
 - Decreasing
- Program challenges
 - Acquiring new holders
- What you can do to help this program
 - Consider them for new exhibits, including mixed species
 - Get involved with the GSMP work; Anoa, Banteng and Babirusa.



Studbook Keeper:
Telena Welsh, Point Defiance Zoo and Aquarium
253-404-3676
Telena.welsh@pdza.org

Scimitar-horned Oryx

- **Globally** (as of March 2023)
 - 1394.1754.109 (3257) animals in 181 institutions
 - AZA
 - 63.151.1 (215) animals in 16 institutions
 - Births: 11.16.6 (30) in 4 institutions (in 2022)
 - Deaths: 7.8.4 (19) in 10 institutions (in 2022)
 - Transfers: 1.3.0 (4) in 2 institutions (in 2022)
 - EAZA
 - 116.228.0(344) animals in 59 institutions (March 2023)
- **SSP Provisional** - zoo population
 - Recommended 98 females to breed and 18 SSP transfers.
 - Recommended 41 transfers out of AZA to private sector.(5.37)
 - If you need to place animals out of SSP, please contact coordinator, regarding those transfers.
- **IUCN: Extinct in the wild**
 - Chad re-introduction continues to be successful. Oryx are re-established, reproducing and thriving. To become involved contact John Watkins at Sahara Conservation Fund.
- Challenges that adversely affect program:
 - Maturing males are difficult to manage in a group
 - Studbook Coordinator position currently OPEN
 - EEP population is at 340 animals, losing holders and Brexit stopped exotic ruminant exchanges between UK and EU but is gradually picking up
- What TAG or Institutions can do to help program & improve sustainability?
 - Need holders willing to hold bachelor groups or single males
 - Participate in the Collection and Shipment of Reproductive tracts. Contact Budhan Pukazhenth, Smithsonian Conservation Biology Institute within 24 hours of death of animal. Protocol in Breeding & Transfer Plan document.



Program Leaders

- RoxAnna Breitigan- SSP
 - The Living Desert Zoo & Gardens
 - rbreitigan@livingdesert.org
 - 760-346-4898
- Tania Gilbert- International Studbook
 - Marwell Wildlife
 - taniag@marwell.org.uk
 - +44 (0) 1962 777934

Nile Lechwe (*Kobus megaceros*)

2023

- Previous program designation: Yellow SSP
- New program designation: AZA Studbook
- Population & number of institutions (AZA & non-AZA): 43.51; 6 institutions
- IUCN designation and population trend: Endangered; decreasing
- Program challenges: low number of institutions
- What you can do to help this program: bring this species in to your collection!
- Optional other interesting tib-bits of info: endangered species with little known about wild population. Holding this species has direct conservation benefit.



Mike Murray
Detroit Zoological Society
murray52@gmail.com

Yellow-Backed Duiker (*Cephalophus silvicultor*) 2023

- Previous program designation:
 - Yellow SSP
- New program designation:
 - Provisional SSP
- Current population:
 - 20.25 (45) individuals at 20 AZA. Additional animals at at least 2 non-AZA
- IUCN designation and population trend:
 - Near threatened, population is declining
- Program challenges:
 - Finding homes for single duikers or facilities willing to be a part of the program
 - Viability in captive births
- What can you do to help?
 - If you currently have a successful breeding pair, can you house more individuals?
- Other:
 - Best Care Guideline available on [AZAUngulates](#) page



Alex Hauenstein
Dallas Zoo
Alex.Hauenstein@dallaszoo.com
330-466-8525 (cell)

Red Flanked Duiker (*Cephalophus rufilatus*)

2023

- Previous program designation:
 - [Red SSP](#)
- New program designation:
 - [Studbook](#)
- Population & number of institutions:
 - [AZA - 12.12.0 at 10 institutions](#)
 - [NonAZA - 4.3.0 at 3 institutions](#)
- IUCN designation and population trend:
 - [Least Concerned w/ declining population](#)
- Program challenges:
 - [Recently captive population numbers have been decreasing.](#)
 - [More males being born recently which requires new holders to accommodate.](#)
 - [Perceived exhibition challenges.](#)
- What you can do to help this program
- Optional other interesting tib-bits of info: [Best Care Guideline available on the AZA Ungulates page.](#)



Name of program contact: Joseph T. Svoke
Institution: Zoo Miami
Email: joseph.svoke@miamidade.gov
Phone: 786-798-4828

Blue Duiker (*Philantomba monticola*)

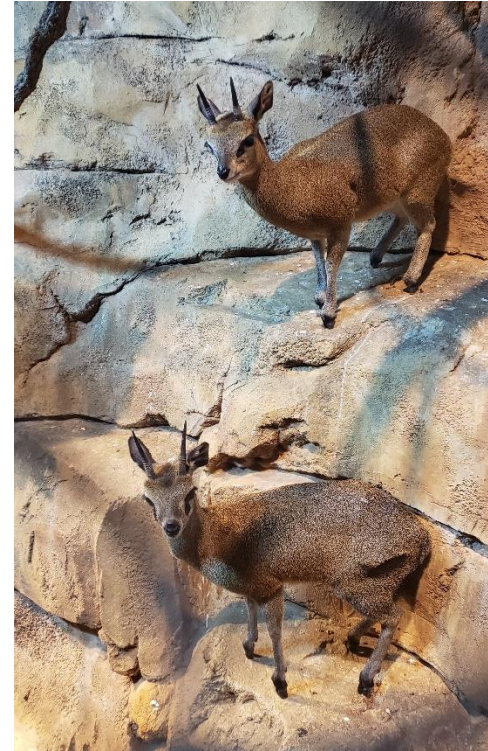
- Previous Program Designation: SSP
- New Program Designation: Provisional SSP
- 36 individuals (21.19.0) at 13 AZA institutions as of Nov 2022.
- IUCN Species of Least Concern, decreasing population
- No data on the wild population (Africa), but they are subject to the bush meat trade
- This SSP needs institutions who are willing to house blue duikers (single males) and participate in breeding (i.e., You).
- Blue duikers are adorable and would make a great addition to your collection plan. They can even be housed with other species, and they don't take up much space or resources. Calves are social media hits (see Kansas City Zoo)!



- Program Leader: Sarah Ksiazek
- Dallas Zoo
- Sarah.Ksiazek@dallaszoo.com
- 678-516-5146 (cell)

Klipspringer *Oreotragus oreotragus* 2023

- Previously: RED population.
- New program designation: Regional Studbook only.
- 14.13 within 10 AZA institutions.
- 7.6 within 4 Non-AZA institutions.
- IUCN designation: Least concern.
- Population trend: Stable.
- Program challenges:
 - Low birth rates- There is currently three facilities waiting for klipspringers, but there were zero successful births in 2022.
 - Moving animals out of non-AZA facilities for breeding recommendations.
- Two new facilities onboarding for 2023.
- New Breeding and Transfer plan due for mid-2023.
- Klips make great mixed species animals and have high visibility.



Cassandra Kutilek
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312-742-7684

Southern Gerenuk (*Litocranius walleri walleri*)

2023

- Previous program designation: **SSP**
- New program designation: **Consortium**
- Population & number of institutions (AZA & non-AZA) – **39 individuals in AZA & 14 in non-AZA**
- IUCN designation and population trend **Near Threatened (NT) with population numbers decreasing**
- Program challenges – **high <1 mortality rate (40%)**
- What you can do to help this program
Breed every available female
- Optional other interesting tib-bits of info



Name of program contact – Matt Toy
Institution – White Oak
Email – Mtoy@white-oak.org
Phone – Office: (904) 225-3343
Cell: (863) 990-9134

Bontebok (*Damaliscus pygargus pygargus*) 2023

- Previous program designation: Regional Studbook and Red SSP
- New program designation: Studbook/Recommend consortium management
- Population & number of institutions 12
AZA: 35(16.19) 4 Non-AZA: 35(10.25)
- IUCN designation: Vulnerable
- Population trend: Stable
- Program challenges
 - A species that needs more specialized management.
 - They do best in very large habitats
 - Large number of animals excluded due to UNK genetics
- What you can do to help this program
 - Continue working on USDA import station
 - Further research on semen collection and AI
 - Continue partnership with non AZA holders



Name of program contact: Lissa McCaffree
Institution: Lincoln Children's Zoo
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Phone: 760 492-4486



2023 Midyear Meeting Program Updates

AZA Equid TAG

Chair, David Powell, dpowell@stlzoo.org

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Plains zebra (*Equus quagga*)

2023

- Previous designation: Yellow SSP
- New designation: Provisional SSP
- 50 AZA institutions
- 17 non-AZA institutions
- IUCN designation Near Threatened with a decreasing population trend
- Program challenges
 - Unknown pedigree
 - Castration of males
- Help the program
 - Obtain information about unknown ancestors
 - Rotate breeding males in and out of breeding groups
- Plains zebra first appeared in AZA facilities in 1875 in Philadelphia



John Register
Houston Zoo
jregister@houstonzoo.org
713-533-6682

Persian Onager (*Equus hemionus onager*) 2023

- Previous program designation: Tag Monitored
- New program designation: Tag Monitored
- 29 (8.21) in 2 AZA institutions
- Endangered – Stable (IUCN 2015)
- Program challenges:
 - Lack of space/holders needed
 - New genetics needed
- Genetics could be greatly improved by managing Asiatic wild asses at the species level. EAZA is currently studying/considering this change.
- There was some interest in early 2022 for animals to be introduced in a new series of reserves in Saudi Arabia but potential collaborators ceased communication.



Program Contact:
Kate Volz
Smithsonian's National Zoo and Conservation
Biology Institute
volzk@si.edu
202-633-3675

Grevy's zebra (*Equus grevyi*)

2023

- Previous program designation: Green SSP
- New program designation: Provisional SSP
- Population & number of institutions:
 - 43.95.0 @ 31 AZA facilities
 - 10.6.0 @ 3 non-AZA facilities
- IUCN designation and population trend: Endangered A2acd (2016), Stable, 1,956 adult individuals
- Program challenges
 - Additional institutions and/or spaces needed to grow population.
 - Male holding space is an SSP priority.
 - Zoos with breeding herds need to be able to house offspring for 2-4 years.
 - Facilities for separating stallions are critical & should include outdoor access.
- What you can do to help this program
 - Complete breedings & transfers as recommended
 - Provide space for non-breeding & retired animals
 - Next Great Grevy's Rally national census in northern Kenya is tentatively planned for January 2024. Past GGRs have included a team of zoo professionals. If interested in participating, contact Martha Fischer



Photo provided by Grevy's Zebra Trust

Name of program contacts:

Martha Fischer, SSP Coordinator

Katie Pilgram-Kloppe, Regional Studbook Keeper

Institution: Saint Louis Zoo

Email: fischer@stlzoo.org; pilgrim@stlzoo.org

Phone: 314-646-4610

Asian Wild Horse

(*Equus caballus przewalskii*)

2023

- Yellow SSP
- Provisional SSP
- 115 (55.60.0) at 16 AZA & 6 non-AZA
- Endangered, population is trending UP
- No potential for new founders, populations need intensive management & bachelor herd dynamic can be challenging
- Reach out and get involved, they make great display animals.
- Bachelor groups seem to do better when raised together.
- Two clones were produced from a genetically valuable animal but will take many years to know if they will be helpful to the program.



Photo by Mark Rinker

Michael Barnes
Zoo Miami
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(818) 434-8335

Hartmann's Mountain Zebra (*Equus zebra hartmannae*)

2023

- Previous program designation: **Yellow SSP**
- New program designation: Signature SSP
- Population & number of institutions
- 28.47 (75) in 19 AZA facilities
- IUCN designation: Vulnerable but increasing as a species
- Small population, limited genetics, high degree of unknownness
- What you can do to help this program?
 - **Add them to your collection, particularly males**
 - **Agree to participate in international transfers!**
- Mixable with a variety of species but usually in larger acreage but has worked in small acreage with giraffe, rhino, and bird species



Fossil Rim Wildlife Center

Name of program contact: Vacant
Institution
Email
Phone

Somali Wild Ass

Equus africanus somaliensis

- Previous program designation: Yellow SSP
- Will manage as Consortium
- Population & number of institutions:
 - Population: 81 individuals in the North American studbook
 - AZA holders: Eight
 - Non-AZA holders: Two
- IUCN designation and population trend: **Critically endangered** 23-200 individuals. Population trend-Decreasing
- Program challenges/needs:
 - Identifying and recruiting AZA and non-AZA institutions willing to hold intact males
 - Recruiting new holders within and outside of AZA



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2023 Midyear Meeting Program Updates

AZA Rhino TAG

Chair, Adam Eyres, adame@fossilrim.org

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Eastern Black Rhino 2023

- 29.26.0 (55) in 25 AZA institutions
 - Signature SSP – zoo population stable
 - Endangered – wild population improving in some areas, still being poached heavily in others.
 - Changes since last year
 - 0.2 births 2.1 deaths in 2022
 - One known pregnancy for 2023
 - Challenges that adversely affect program:
 - Low birth rates, long inter-birth interval, and early embryo loss
 - Additional spaces needed
- 
- SSP Coordinator
 - Lisa Smith
 - Buffalo Zoo
 - Lsmith@buffalozoo.org
 - 716.995.6130
 - Studbook/Population Biologist
 - Gina Ferrie
 - Disney's Animal Kingdom
 - Gina.M.Ferrie@Disney.com

White Rhino 2023

- 76.140.0 (216) rhinos in 45 AZA facilities.
- **Signature SSP**
- Vulnerable. Status in the wild—poaching is somewhat reduced, but overall numbers are lower than previously indicated.
- Breeding and Transfer Planning is happening Thursday 30 March, 2023.



- SSP Coordinator--Adam Eyres
- Fossil Rim Wildlife Center adame@fossilrim.org
- SSP Vice Coordinator—Dan Beetem
- The Wilds dbeetem@thewilds.org
- Studbook Keeper—Jonnie Capiro
- San Diego Zoo Wildlife Alliance
Jcapiro@sdzwa.org
- Population Biologist—Jamie Ivy
- Jivy@jamieivy.com

Greater one horned rhino 2023

- 36.45.0 (81) rhinos in 19 AZA facilities and one Sustainability Partner
- Signature SSP
- Endangered Wild populations are improving through IRV2020 and the new IRV2.0.
- Master Planning happens this Thursday March 30th, also
- A strong push should be made in each facility to train for reliable blood collections
- Any facilities that are being renovated or built from new should avoid concrete and implement soft surface areas.



- SSP Coordinator—Scotty Wade
- White Oak Conservation swade@white-oak.com
- Studbook Keeper—Cody Cseplo
- The Wilds ccseplo@thewilds.org
- Population Biologist—Jamie Ivy
- Jivy@jamieivy.com