

Meeting Minutes

Recorded by Ginger Elliott – African Lion Safari

Date of meeting: December 2nd, 2022 2:00pm

Who attended the meeting? What CAZA institute are they from?

1. Amy Chabot - African Lion Safari
 - a. Ginger Elliott, Canadian Species Initiative
2. Sharolyn Heeringa - Riverview Park and Zoo
3. Donnell Gasbarrinni - Toronto Zoo
4. Jim Facette - CAZA
5. Catherine Shier - Edmonton Valley Zoo
6. Cheryl Sheridan - Little Ray's Reptile Zoo
7. Hana Thompson - Guest
8. Ashliegh Westphal - Assiniboine Conservancy

Meeting resources:

CAZA Professional Fellow Application (WORD)

Canadian Endangered Species Conservation Council. 2022. Wild Species 2020: The General Status of Species in Canada. National General Status Working Group: 172 pp. (PDF)

Recording of meeting:

https://drive.google.com/file/d/14oi4blyirWPPE9Z7Vk8i8PwgYWOFcvQb/view?usp=share_link

Speakers:

Ginger Elliott, gelliott@lionsafari.com

Hana Thompson, hana.thompson@queensu.ca

Meeting summary:

2:00pm Welcome, Amy.

2:05pm CAZA Professional Fellow Application 2023, Jim Facette. Resource attached.

2:10pm Wild Species 2020: The General Status of Species in Canada. Resource attached.

Canada is home to about 80 000 species (excluding viruses and bacteria). With the inclusion of 50 534 species, an increase of over 20 000 species from the previous report, the Wild Species 2020 report represents the most complete understanding we have ever had on the status and distribution of wild species in Canada. Canadian Endangered Species Conservation Council. 2022.

2:15pm The Canada BioGenome Project, Ginger Elliott

The Canada BioGenome Project will embark on the task of determining the complete genetic diversity of Canada's plants and animals through genomic sequencing. They aim to "demonstrate how genomics can aid conservation, biodiversity, restoration and species monitoring."

"Generating reference genomes for species management in artificial environments, away from endemic locations, (such as in zoos) serves as an invaluable resource to address knowledge gaps regarding local adaptation of Canadian populations, tracking of levels of diversity over time and for pairing purposes."

<http://earthbiogenome.ca/index.mhtml>

How? Blood samples collected from captive focal species OR Tissue samples from opportunistic postmortem events.

What?

- Blanding's Turtle, Blue Racer, Butler's Gartersnake, Eastern Foxsnake, Eastern Massasauga, Eastern Musk Turtle, Pacific Gophersnake, Western Pond Turtle, Pygmy Short-horned lizard, Queensnake, Spiny Softshell, Spotted Turtle, Timber Rattlesnake, Wood Turtle
- Barn Swallow, Burrowing Owl, Ferruginous Hawk, Roseate Tern, Spotted Owl, Vesper Sparrow
- American Marten, Black-tailed Prairie Dog, Ermine haidarum, Ord's Kangaroo Rat, Pacific Water Shrew, Swift Fox, Townsend's Mole, Wolverine
- Allegheny Mountain Dusky Salamander, Blanchard's Cricket Frog, Fowler's Toad, Great Basin Spadefoot, Jefferson Salamander, Northern Dusky Salamander, Northern Leopard Frog, Oregon Spotted Frog, Small-mouthed Salamander, Tiger Salamander

Zoos play a key role as it is near to impossible to sample certain endangered species in the wild.

Arthropods: require whole body samples sent to the Canadian Biogenome Project

- Bogbean Buckmoth, Dakota Skipper, Eastern Persius Duskywing, Five-spotted Bogus Yucca Moth, Frosted Elfin, Gypsy Cuckoo Bumble Bee, Hungerford's Crawling Water Beetle, Island Marble, Karner Blue, Maritime Ringlet, Mormon Metalmark, Mottled Duskywing, Nine-spotted Lady Beetle, Non-pollinating Yucca Moth, Northern Barrens Tiger Beetle, Ottoe Skippe, Rusty-Patched Bumble Bee, Sable Island Sweat Bee, Sand-verbena Moth, Taylor's Checkerspot, Yucca Moth

We are allowed to provide suggestions of UNIQUE, THREATENED, CULTURALLY SIGNIFICANT, HAS ECONOMIC VALUE Canadian species of which we believe should be added to the project. If you have a recommendation and availability please contact us with a sentence or two on why the animal is significant and we can submit it for consideration.

2:20pm Eastern Massasauga Rattlesnake Genomics Workshop, Hana Thompson

One of 3 case study species; chosen largely because there is a managed captive population to support recovery actions in situ. Goals: Identify where genomics can be applied to Eastern Massasauga recovery goals for ex-situ and in-situ conservation. Make decisions on genomic tools and methods. Develop a framework for applying genomics to conservation of other species.

A full-day in-person Massasauga Genomic Workshop on February 15, 2023 at African Lion Safari,

The workshop will consist of a mix of seminars to talk about where we can intervene with genomics to assist recovery actions and the different tools available (pros and cons, how to use, prioritizing tools to assess), and then leading into making specific action items for next steps, sampling logistics, who will participate, timelines, and preparing to implement actions.

2:25pm Meetings in the new year, Amy Chabot

2:30pm Discussion

ADJOURNMENT: 2:35pm

Next Meeting Date: January 2023