Management Adjustments to Address Aging Populations
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• To create awareness surrounding the challenges and adjustments that occur in aging populations in zoos and aquariums.

• To give a variety of examples from our different experiences in caring for aging animals.

• To use several activities to simulate some of the changes aging animals encounter.

• We will NOT be addressing quality of life or euthanasia decisions in this workshop.
Topics of Discussion

- Mobility, Vision & Hearing Challenges
- Training for Medical Issues
- Maintaining Healthy Weights
- Training & Enrichment Alterations
- Housing Modifications
- Adjustments After an Animal Death
Mobility Challenges

- Arthritis
  - Limited mobility
  - Pain
- Fused spines
- Slower pace
- Loss of balance
  - Slipping
  - Falling
Flooring and Bedding

- Extra mats
- Connecting Mats/Mondo floors
- Substrate Options
- Bedding
- Loss of traction/slipping
Arthritis Activity
Ramps & Curbs

Komodo Dragon Chute before ramp
Off show holding area,
Disney’s Animal Kingdom®

Komodo Dragon Chute with ramp
Off show holding area,
Disney’s Animal Kingdom®
Pools

Malayan Tapir pool before steps, Disney’s Animal Kingdom®

Malayan Tapir pool with steps, Disney’s Animal Kingdom®
Pain & Loss of Balance Activity
Age-Related Vision & Hearing Impairment

Vision:
• Placing food and water in the same locations.
• Routine so animals learn the expected pattern.
• Adding verbal or movement cues.
• Making sure enrichment isn’t a trip hazard.
• Turning lights on to make an area easier to see.
Cues and Vision Challenges

Malayan Tapir Target Training
Off show holding area,
Disney’s Animal Kingdom®

Audio Cue Examples,
Disney’s Animal Kingdom®
Vision Activity

Age Related Vision & Hearing Impairment

Hearing:
• Consider their environment and social implications of interacting with other animals.
• Replace verbal and audio cues with visual or tactile cues.

Komodo Dragon Training, Disney’s Animal Kingdom®
Hearing Loss Activity
Training for Medical Issues

• Medicating Animals
• Monitoring health without anesthesia
• Health concerns for the species or individual
• Reviewing and adjusting training plans
Administering Medications in Groups

Blackbuck Cue Training
Disney’s Animal Kingdom®

Blackbuck cue training
Off show holding area,
Disney’s Animal Kingdom®
Monitoring Health

- Tiger Voluntary Blood Draw
  Off show holding area,
  Disney’s Animal Kingdom®

- Tiger Blood Pressure
  Off show holding area,
  Disney’s Animal Kingdom®

- Tiger Fluid Therapy
  Off show holding area,
  Disney’s Animal Kingdom®

- Tiger Ultrasound
  Off show holding area,
  Disney’s Animal Kingdom®
Training with Geriatric Animals

- Decreased Flexibility
- Decreased Stamina
- Change expectations based on abilities

Tiger Tree Jump Behavior, Disney’s Animal Kingdom®

Tiger Tree Jump Behavior, Disney’s Animal Kingdom®
Activity Effects on Performance
Maintaining Healthy Weights

- Adding weight to thin animals
- Closely monitoring weight changes and consumption
- Challenges associated with herd animals
- Diet modifications (dental, stomach issues)
Enrichment and Diet Makeovers

• Reduced interest in previously favored food items.
  – Offer items in different formats
  – Try new items

• Tastes change in old age
  – Sight
  – Smell
  – Taste Buds
Smell and Taste Activity

Malayan Flying Fox Fruit Skewer,
Disney's Animal Kingdom®
Housing Adjustments

• Looking at spaces in the area to see if they can be modified to better accommodate the animal
• Creating spaces for animals
• Pulling animals out of a group for the day or permanently
  – Buddies and the future of buddies
• Separation training
  – Preparing animals for new groupings or to being alone
• Adapting for extreme heat or cold
• Ramps, flooring, etc.
Malayan Flying Exhibit,
Disney’s Animal Kingdom®

Spiny Mouse,
Disney’s Animal Kingdom®

Retirement Reasons
Retirement Using Existing Spaces
Chute to Connect Bedroom and Holding Area,
Off show holding area,
Disney’s Animal Kingdom®
Extreme Temperatures Alterations

• Modifying general temperature guidelines for older animals.
• Bedding
• Heat, fans, air
• Pools & misters

Tiger Indoor Pool
Off show holding area, Disney’s Animal Kingdom®

African Guinea Hog
Off show holding area, Disney’s Animal Kingdom®
Adjustments After an Animal Death

- Pairs of Animals
- Social dynamics in groups

Blackbuck Herd
Off show holding area,
Disney’s Animal Kingdom®
Pairs of Animals

Javan Banteng Pair
Off show holding area,
Disney’s Animal Kingdom®
Social Dynamics in Groups

- Monitor for changes
- Make adjustments
Topic Recap:

Mobility, Vision & Hearing Challenges
Training for Medical Issues
Training & Enrichment Alterations
Maintaining Healthy Weights
Housing Modifications
Adjustments After an Animal Death
• Look at aging animals with a fresh perspective.

• Inspiration to modify husbandry practices for geriatric animals at your institution.
Geriatric Animal Care:

Activities Influenced By:
Questions?

Eld’s Deer,
Disney’s Animal Kingdom®