

Domestic Animal Feeding Behavior

By: Briana Holland

Objectives

- To find out how long it takes each to consume one full meal
- To determine the amount of time each species spends biting, chewing, and swallowing their food
- To discover how each species uses their mouth for food consumption
- To learn of any before or after-meal rituals

3 Species

- Herbivore: Horse
- Carnivore: Dog
- Omnivore: Sugar Glider

Horse

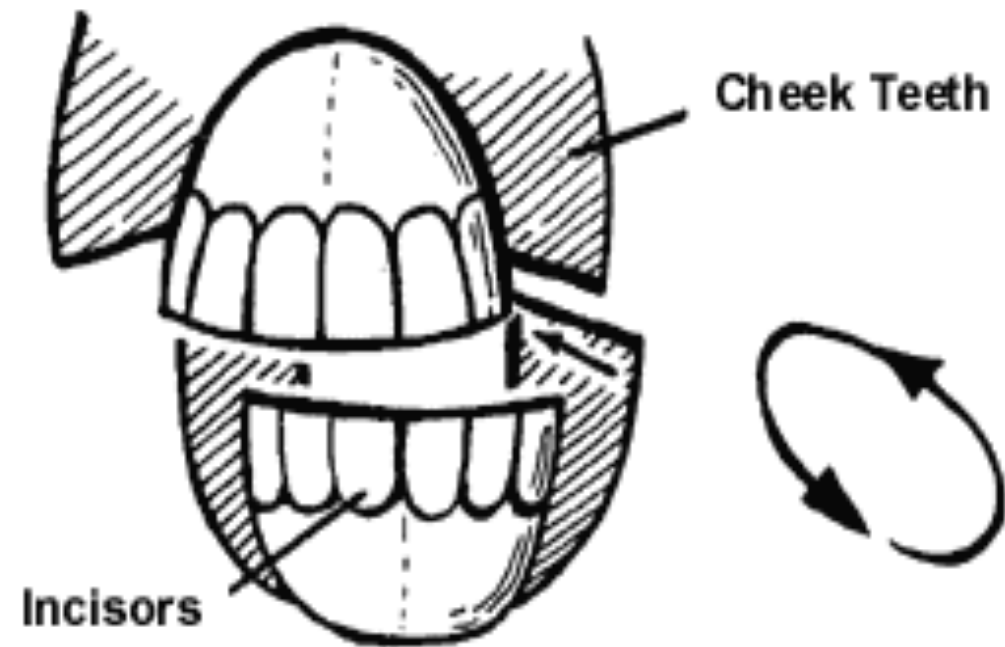
- 8 year old female
- Feed
 - Mare & Foal
 - Complete Nutrition
- ~ 9 min
- Before feeding
 - Stomping
 - Antsy
- During feeding
 - Slightly aggressive toward others
 - Grab the food with the lips
 - Grind up food
 - Grabs pellets while still chewing

Twister



Horse

- 36-40 permanent teeth
- Upper lip
 - Grabs food
- Tongue
- Mastication is side-to-side
 - Takes several minutes
- When food is soft enough, the horse will swallow



Source: <http://www.equiworld.net/horses/horsecare/dentist/straightfromthehorsesmouth/howdohorseschew.htm>

Horse Ethogram

Action	Description
Mastication	The act of chewing/grinding the food
Pacing	Movement back and forth
Biting	Gripping the food with the teeth
Swallowing	Guiding the food down the throat
Nipping	Using the front teeth to pinch down on something or someone
Stomping	Beating a hoof on the ground

Video: Twister



Dog

- 21 month old Australian Shepherd
- Simply Nourish Dry Food
 - Chicken flavor
- 2 minutes 34 seconds
- Before feeding
 - Gets very excited
 - Tail wagging, jumping
- During feeding
 - Eats quickly
 - Turns head away and drops food on floor
 - Walks around
- After feeding
 - Licking lips
 - Wants to go outside



Dog

- Teeth designed to tear food
- Mastication is up and down
 - Cannot move jaw side to side
- Speed eating
 - May come from their ancestors in the wild
 - Pointed teeth to grab food and swallow whole
- Don't need to savor the food
- Grabbing with the tongue?
 - Same way dogs drink water



Source: <http://www.mypetsdentist.com/dogs-dental-chart.pml>

Dog Ethogram

Action	Description
Licking	Moving tongue over an area
Mastication	The act of chewing food
Swallowing	Guiding the food down the throat
Biting	Grabbing food with the teeth
Pacing	Movement around the room
Drinking	Using the tongue to guide water into the mouth
Jumping	At least two feet off the ground
Tail wagging	Movement of the tail back and forth in excitement

Video: PJ



Sugar Glider

- 9 month old brother and sister
- Feed
 - Coconut pellets (video)
 - Dried mealworms
 - Fruit
 - Apple juice
- Before feeding
 - Just waking up for the night
- During feeding
 - Use hands to hold the food
 - Tiny teeth to bite food and chew it up
- After feeding
 - Hyperactive – want to play



Roger

Luna

Sugar Glider

- Marsupial
 - More comfortable in pressurized spaces (like pouches)
- Nocturnal
- Two long teeth in front bottom
 - Used to scoop out fruit
 - “Diprodont”
- Very long tongue
 - Used to lick things
- Can thrive solely on eating sugar
 - Hence the name “sugar” glider
- Can also eat meat
 - Mealworms

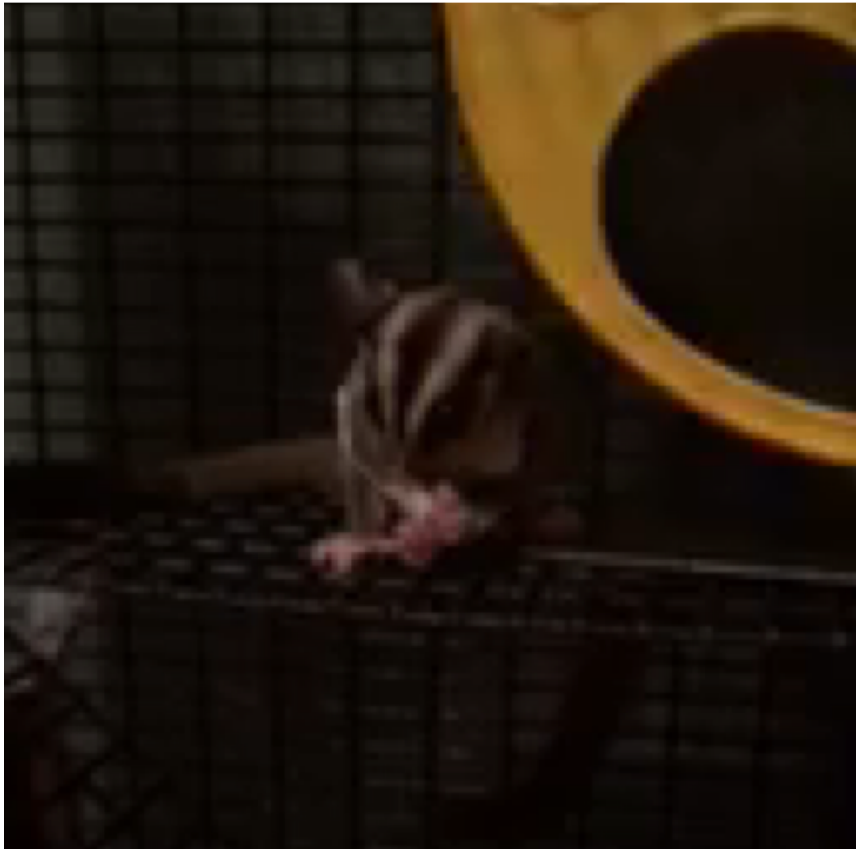


Source: <https://www.sugargliderinfo.org/health-reports/sugar-glider-anatomy-101/>

Sugar Glider Ethogram

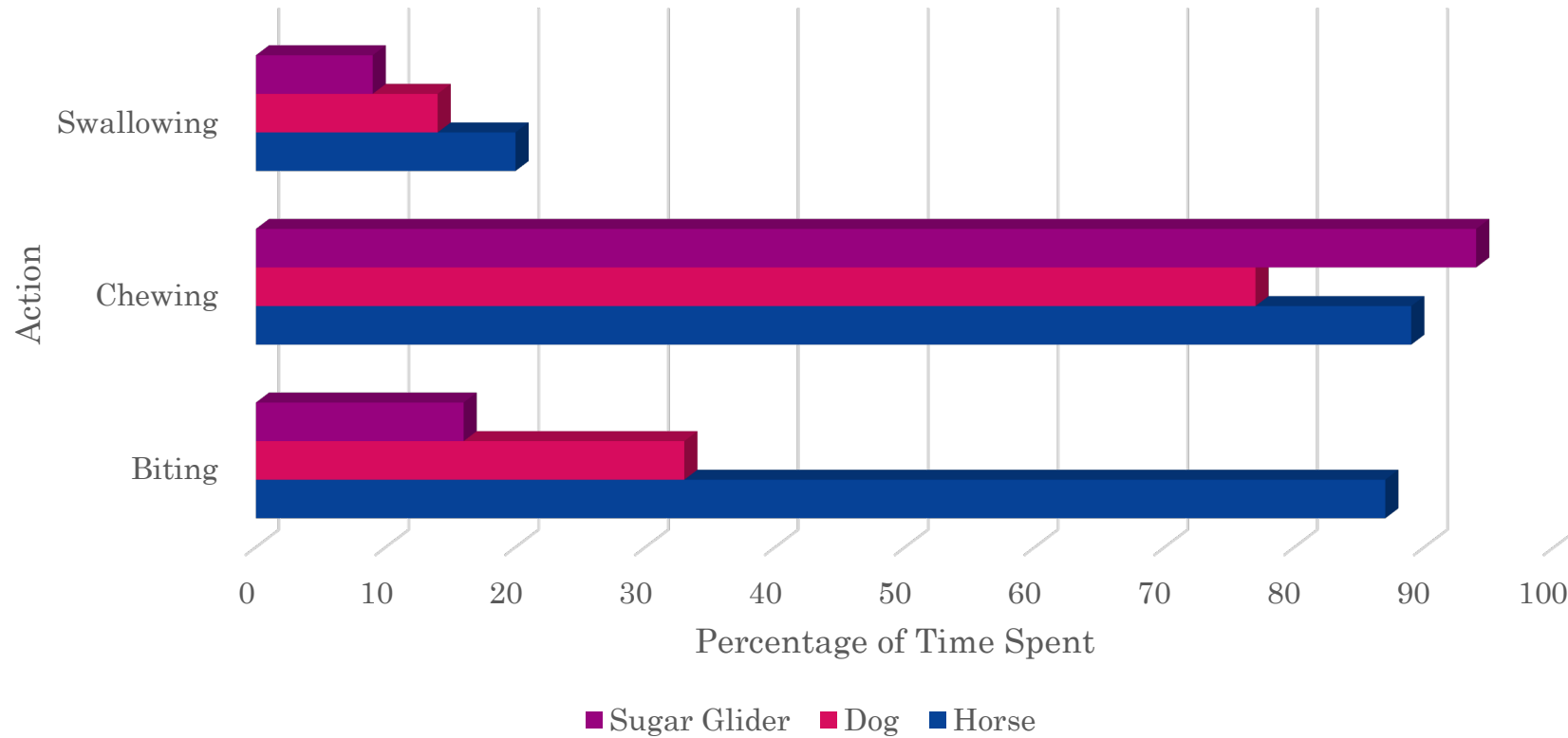
Action	Description
Chewing	A quick movement of breaking the food up in the mouth
Scooping	Use of the bottom incisors to grab food
Swallowing	Movement of food down the throat
Biting	Using the teeth to grab pieces of food
Grabbing	Using the hands to hold the food
Licking	Use of the tongue to taste certain foods
Turning	Moving the food in a circular motion with hands

Video: Luna



Comparison

Percentage of Time Spent Biting, Chewing, and Swallowing



Sources

- <https://www.sugargliderinfo.org/health-reports/sugar-glider-anatomy-101/>
- <http://www.equiworld.net/horses/horsecare/dentist/straightfromthehorsesmouth/howdohorseschew.htm>
- <https://indianapublicmedia.org/amomentofscience/dogs-eat/>
- <https://thehorse.com/115517/back-to-basics-equine-dental-terminology-and-anatomy/>



Questions?