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
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

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

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

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chewing</td>
<td>A quick movement of breaking the food up in the mouth</td>
</tr>
<tr>
<td>Scooping</td>
<td>Use of the bottom incisors to grab food</td>
</tr>
<tr>
<td>Swallowing</td>
<td>Movement of food down the throat</td>
</tr>
<tr>
<td>Biting</td>
<td>Using the teeth to grab pieces of food</td>
</tr>
<tr>
<td>Grabbing</td>
<td>Using the hands to hold the food</td>
</tr>
<tr>
<td>Licking</td>
<td>Use of the tongue to taste certain foods</td>
</tr>
<tr>
<td>Turning</td>
<td>Moving the food in a circular motion with hands</td>
</tr>
</tbody>
</table>
Video: Luna
Comparison

Percentage of Time Spent Biting, Chewing, and Swallowing

Action

- Swallowing
- Chewing
- Biting

Percentage of Time Spent

Sugar Glider - Dog - Horse
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/
