Feeding Behaviors of the Dog, Cat, and Betta Fish

Kayla Fenn
Introduction

What Species Were Observed?
- Dog, Cat, Betta Fish

What Behavior Was Observed?
- Feeding

What Was Recorded?
- Complete ethogram of each species, and comparison of feeding behavior
## Literature Review

<table>
<thead>
<tr>
<th></th>
<th>Dog</th>
<th>Cat</th>
<th>Fish</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td>Scavenger</td>
<td>Carnivore</td>
<td>Carnivore</td>
</tr>
<tr>
<td><strong>Nutrition</strong></td>
<td>Carbs, proteins, fat</td>
<td>No carb enzyme</td>
<td>Short digestive tract- can’t absorb carbs well</td>
</tr>
<tr>
<td><strong>Common Behaviors</strong></td>
<td>Fast eating, large amounts</td>
<td>Frequent eating, small amounts</td>
<td>Opportunistic eating</td>
</tr>
</tbody>
</table>

- **Dog**
  - Type: Scavenger
  - Nutrition: Carbs, proteins, fat
  - Common Behaviors: Fast eating, large amounts

- **Cat**
  - Type: Carnivore
  - Nutrition: No carb enzyme
  - Common Behaviors: Frequent eating, small amounts

- **Fish**
  - Type: Carnivore
  - Nutrition: Short digestive tract- can’t absorb carbs well
  - Common Behaviors: Opportunistic eating
Methods

Canine Subject

Gender: Female
Age: 4 years
Breed: Goldendoodle
Weight: 60 lbs
BCS: 3- Ideal, healthy

Willow
Methods

Feline Subject

Gender: Male
Age: 7 years
Breed: Russian Blue mix
Weight: 14 lbs
BCS: 3- Ideal, healthy

Buddy
Methods

Piscine Subject

Gender: Male
Age: Adult
Breed: Veiltail
Length: 1.5 inches
## Methods

<table>
<thead>
<tr>
<th>Feeding Method</th>
<th>Dog</th>
<th>Cat</th>
<th>Betta Fish</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time of day</strong></td>
<td>3:00pm</td>
<td>6:00pm</td>
<td>9:00pm</td>
</tr>
<tr>
<td><strong>Temperature</strong></td>
<td>78 F (Outdoor)</td>
<td>73 F (Indoor)</td>
<td>76 F (In tank)</td>
</tr>
<tr>
<td><strong>Feed Type</strong></td>
<td>Kirkland Adult Dog</td>
<td>Meow Mix</td>
<td>TetraBetta Pellets</td>
</tr>
<tr>
<td><strong>Feed Amount</strong></td>
<td>2 cups</td>
<td>Ad libitum</td>
<td>One Pellet</td>
</tr>
<tr>
<td><strong>Feed Container</strong></td>
<td>Slow-Feed Bowl</td>
<td>Metal Bowl</td>
<td>Water Surface</td>
</tr>
</tbody>
</table>
Results - Dog

Total Feeding Time: 1 min and 40 sec

Percent of time feeding (prehension, chewing, swallowing): 58%
Results - Cat

Total Feeding Time: 50 sec

Percent of time feeding (prehension, chewing, swallowing): 80%
Results - Fish

Total Feeding Time: 2 min

Percent of time feeding (prehension, chewing, swallowing): 26%
Results

Comparison of Frequency of Common Feeding Behaviors of Dog, cat, and Fish

Percent of Time Behavior Was Displayed in a Single Feeding

Common Feeding Behaviors for Dog, Cat, and Fish
Conclusion/Interpretation

Dog ate really fast, and eats large amounts

Cat eats several times during day

Fish spent much more time eating (prehension, chewing, swallowing)

Surveying was observed in all three species

More movement in the fish

**Literature:** Passed from wolves

**Literature:** Wild cats survive off small kills

**Literature:** Pellets are often too hard

**Literature:** Protection of food from competitors

**Personal Hypothesis:** Due to more fluid environment
Sources

https://academic.oup.com/jn/article/136/7/1927S/4664714
https://www.physiology.org/doi/pdf/10.1152/ajplegacy.1970.219.5.1380
https://ac.els-cdn.com/0006899374909962/1-s2.0-0006899374909962-main.pdf?_tid=12ef59b9-ea9c-42b3-adb3-a4e9b719e590&acdnat=1523906531_779aad72042f932661c5bdb319692f38
http://cmsadmin.atp.co.il/Content_siamb/editor/56_2_james.pdf
https://bettafish.org/care/food-feeding/
http://psycnet.apa.org/record/1975-20716-001
https://www.sciencedirect.com/science/article/pii/003456878590125