Animal of the Month

Flamingo
October 2012

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PGAV DESTINATIONS
11/19/2012
Flamingo *Phoenicopterus spp.*

1. Conservation Status: Andean, Chilean & Caribbean are threatened
   - Range: Bahamas, West Indies, Mexican Yucatan, Northern areas of South America and the Galapagos Islands. Sometimes found in the Coastal US.

2. Size
   - Weight: 8-9 lbs
   - Height: 36 to 50 inches tall with a wingspan of up to 60 inches
   - The males and females look very much alike, but typically the males are larger.

3. Social Structure:
   - Flamingos are very social birds. They feed, lounge and fly in flocks. In flight they will use different formations to take advantage of varying wind conditions.

4. Reproduction:
   - Flamingos build nests in mud banks. The nests are conical, and approximately 12” in height to avoid flooding and overheating.
   - Flamingos lay a single egg which is attended to by both parents.
   - After hatching, the chick will stay in the nest for up to 12 days. During the time in the nest the chick is fed “crop milk”. This is a substance produced in the upper digestive tract of both males and females. It is not uncommon for other birds in the group to feed the offspring.

5. Behavior
   - Nocturnal vs. Diurnal: Both, as needed. Flamingos spend much of the day feeding and migrate when necessary to new locations at night.
   - Shy vs. Curious: Flamingos are skittish and will fly away when disturbed.
   - Land speed: Flamingos only run when they are getting ready to take off for flight. They most likely cannot maintain speed for a long period of time.
   - Unique Behaviors: The Caribbean and Chilean flamingos often obtain food by upending or placing their head under water with their tail feathers in the air much like a duck.
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6. Captivity
   - Frequency in captivity: Common
   - Noteworthy exhibits:
     - SeaWorld San Diego, Flamingo Lagoon:
       - Refurbished exhibit 2012
       - 4100sf total exhibit, 825sf pool
       - 160+ birds
       - Renovation by PGAV
     - San Diego Zoo’s Lost Forest Flamingo:
       - Original “Flamingo Lagoon” opened 7/28/1954; Updated to Lost Forest Flamingo in April 2003
       - Original Started with 22 American and Chilean Flamingos. Currently at 100+ birds
     - Woodland Park Zoo, Chilean Flamingos in the Temperate Forest:
       - Shared Exhibit – 6000 gallon shallow pool
       - Opened May 2008
       - Started with 27
   - Other Captivity Info: The lifespan of Flamingos in captivity reaches 50 years this is compared to 25-30 years in the wild.

7. Recommended or Required Husbandry Guidelines:
   - AZA & EAZA Recommended (2008)
     - Area (indoor holding or outdoor exhibit):
       - 15 sf / bird overall
       - 10 sf / bird area for nesting (soil substrate)
     - Pool
       - Big enough for all birds to enter
       - Depth 1-3’, but deeper areas allow birds to fully swim
       - Gentle slope entry / exit (max. 1:12 recommended by PGAV)
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- **Barriers**
  - Outdoor barriers: Can be minimal; Fences and walls work best. PGAV recommends 3’ vertical.
  - Indoor barriers: Solid wall to 6’, then mesh above to ceiling.
- **Air Temperatures:** Cold hardy to 24 deg F; Maintain min. 50 deg F indoors

8. **Enrichment Techniques:**
   - **Zoo Approved**
     - **Foods/feeding**
       - Provide access to naturally-occurring foods/organisms in the local environment
       - **Kril** (small shrimp) is a popular food enrichment item:
         - Frozen krill can function as a food reward for operant conditioning, as shown by researchers at the Bronx Zoo
         - Live krill (deposited into the flamingos’ pond) are a special treat for the flamingos at the Houston Zoo
       - Other food items: a range of small whole prey such as copepods and aquatic insect larvae, as well as duckweed (Lemna sp.), chopped greens, and algae species
     - **Environment**
       - Provide appropriate exhibit pools
         - Allow for feeding on the bottom of a natural (or naturalized) lake or water feature – much of their prey in the wild resides in the mud of lake-bottoms
       - Special exhibit features
         - Audiotapes of flamingo vocalizations have been used to stimulate breeding as well as to encourage new or sick birds to eat.
         - Mirrors have been used in some institutions to stimulate small flocks to breed. The mirrors are supposed to fool the birds into thinking that the flock is much larger than it actually is
         - Fountains have been used in several exhibits. They should be designed to allow the birds to bathe in them and to eliminate trip hazards.
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- Social
  - Provide for a sizeable number of birds, as these are social birds that like to live in groups. In the wild, groups of flamingos can number in the thousands or tens of thousands.
  - Other Untested Ideas
    - Consider exhibit rotation – moving the flamingos to different lakes or water features throughout the zoo. If the flamingos occupy one large lake (as at the St. Louis Zoo), look at moving their feeding stations/etc. to other sections of the lake.
    - Provide additional opportunities for foraging with the use of foraging toys/devices, or bury special treats (like krill) in the mud at the bottom of their pool.

Flamingos nesting (© Jim Frimmer)

Feeding behavior (© Douanita via ZooChat.com)
Bibliography


