INTRODUCTION

The Ramphastid family includes 42 species of birds including toucans, toucanets, barbets and aracaris. These brightly colored, unusual birds are found in the woodlands, forests and even the savannahs of Central and South America and Asia. They have large brightly colored, sensitive bills.

Most of this family are predominantly frugivorous omnivores, meaning that in the wild they eat fruit but also some animal protein such as insects, lizards, rodents, and small birds. They have a very short gastrointestinal tract and have a much higher moisture content to their diet compared to other avian species, leading to very soft, liquid, often projectile droppings. The expected lifespan of most ramphastid birds in captivity is 20 years.

Do You Really Want a Ramphastid Bird as a Pet?

It is important to note that ramphastids are very challenging to keep as pets and this fact should be given due consideration prior to acquiring one. First, they are not domesticated birds which means that their owners have to adjust their lives around the needs of the bird, rather than the other way around. Second, they are extremely messy pets, prone to getting their fresh food and their watery droppings everywhere. They are curious and prone to getting into trouble, especially by eating anything small enough to swallow that they can get their beaks on. Additionally, they often lack a sense of self preservation and have been known to fly at the faces of visitors or dogs or cats in the home. Their cages need to be large and their food is expensive and time consuming to prepare correctly. Finally, ramphastids do best when allowed to be flighted and to have access to fresh air and sunshine. That is a long list of things to consider!

Already have one of these amazing birds or sure you want to get one? This handout provides AAV's Basic Care Instructions.





Photo credit: Toco toucan / Wildlife Reserves Singapore / David Tan



Photo credit: Emerald toucanette / Adobe Stock



Photo credit: Curl crested aracari / Adobe Stock

Diet

One of the most important aspects to ramphastid care is diet. Most ramphastids are from iron poor environments and thus have evolved very efficient iron absorption mechanisms. Therefore, birds of this family are highly susceptible to hemochromatosis, or iron storage disease, which can cause severe, and even fatal, illness. In the wild, toucans and toucanettes eat mostly fruit and the occasional small animal. In captivity, it is recommended that they be fed a commercial LOW IRON pelleted diet, non-citrus fruits and, rarely, or when breeding or feeding young, occasional prey items such as pinkie mice, hard boiled eggs, and insects.

Low iron, ripe fruits such as berries (blueberries, raspberries, blackberries), melon (cantaloupe, watermelon, honeydew), papaya, mango, guava, and banana should be offered fresh twice daily, but citrus fruits should be avoided or fed sparingly; papaya is generally used as the primary fruit, followed by cantaloupe if papaya is not available. Small amounts of vegetables can also be offered, such as shredded carrots, peppers, and green beans. Citrus fruits, such as oranges, lemons, or even tomatoes, contain high levels of vitamin C (citric acid) that enhances iron absorption and may lead to iron storage disease. Some high iron foods to avoid are raisins, prunes, figs, apricots, strawberries, dark leafy greens, beans, and lentils.

Recommended diet proportions are 40-50% low iron pellets and 50-60% fresh fruit. The fruits should be cut into 1cm sized pieces; blueberries can be left whole since they are the perfect size to be swallowed. Be sure to remove the seeds from foods like papaya and melons prior to serving.

Sometimes supplements are chosen for these species to enhance their coloration. Carotenes are responsible for the red and yellow pigmentation of their beak and feathers. These can be offered naturally through a diet that includes carrots, red peppers, sweet potatoes, red berries, and paprika. Some pelleted ramphastid diets may contain natural or synthetic carotenes but if not, commercial color supporting supplements are available containing canthaxanthin and synthetic yellow pigments.

Fresh, clean water should be available at all times, though these birds get most of their water from the fruit portion of their diet; because tap and well waters can contain iron, water purified by reverse osmosis is the safest water to offer; this is available at most grocery stores and is generally labeled as "purified water." Don't be surprised if your bird likes to bathe in its water bowl!







Recommended diet proportions are 40-50% low iron pellets and 50-60% fresh fruit. Fresh, clean water should be available at all times and may need to be replaced frequently if your bird chooses to bathe in it.

Photo credit: Adventures in Toucanland (all photos above)

Housing

A large, easily cleaned cage bottom is required, as these birds produce voluminous, frequent soft droppings; additionally, they are messy eaters and are likely to fling their fresh food everywhere in their environment! Minimum dimensions recommended are 3 feet wide x 6 feet long x 6 feet high to allow for flight. Even larger cages should be offered if possible, especially when placed outside; ideally, the bird should have enough space to fly in the cage and to exhibit a wide range of natural behaviors. Flight is so important for these birds because they cannot use their beaks and feet to climb around their cages as parrots do. Additionally, wing trimming is not recommended for these birds as they are clumsy when clipped and more likely to injure themselves.

Several perches should be offered so that the bird can fly or hop from perch to perch. Because these birds like to hop around, their feet can get rubbed raw on concrete perches made for keeping parrots' nails smooth; thus, rope and wood perches are preferred for ramphastid birds.

Ramphastids are often timid and will easily injure themselves if housed in a high traffic area. Therefore, a quiet area with a visual barrier or area to hide is also recommended. Good ventilation is a necessity as bacterial (*Staphylococcus*, *Streptococcus*, *Klebsiella*, and *Pseudotuberculosis*) and fungal (*Penicillium* spp) pneumonia are common causes of illness among these species. Ramphastids frequently sunbathe so natural sunlight is recommended, but these species are susceptible to heat stress making shade a requirement.









Toucan housing and perches. Photo credits: Indoor cage - Jennifer Phillips; Outdoor cage and perch images - Adventures in Toucanland

Other Common Problems

These beautiful birds are very inquisitive and commonly ingest small foreign objects such as screws, nails, rocks, and small toys which may lead to heavy metal toxicity, gastrointestinal obstruction, or gastrointestinal perforation.

As with other birds, ramphastids are sensitive to chemicals, whether inhaled or ingested. When housed outside, make sure the birds are not exposed to harmful chemicals such as insecticides, fertilizers, and rodenticides. Indoors, be careful of burned non-stick cookware fumes as well as cleaning products, cigarette smoke, vaping fumes, etc. Ask your veterinarian for AAV's handout on household dangers for more details.

Ramphastids are clumsy birds and are known to become quite aggressive, especially during breeding season, so trauma is a common occurrence. Their large beaks, despite their appearances, are very soft. Therefore, injury and malocclusion, especially in hand-reared young, are often encountered.

Due to their omnivorous diet and often outdoor housing, gastrointestinal parasites (nematodes, ascarids, flukes, giardia, coccidia), blood parasites (*Plasmodium* spp), *Chlamydia psittaci*, and viral diseases (Newcastle Disease Virus, Pacheco's) are also known to affect these birds.

Annual Veterinary Recommendations

- Examination every 6 months
- Annual blood chemistry and complete blood cell count
- Annual fecal analysis

As with all birds, ramphastids should be brought to an avian veterinarian right away if they ever appear ill (see AAV's handout "Signs of Illness in Companion Birds" for more information).

Enrichment

Ramphastids should be offered water for bathing in the form of a shallow dish or misting to keep their skin and feathers in good condition and to provide mental stimulation.

These birds are very inquisitive and differing forms of enrichment should be offered in the forms of toys and foraging items.



Example of normal ramphastid droppings. Photo credit: Adventures in Toucanland



Example of bathing enrichment.

Photo credit: Dave Womach c/o Adventures in Toucanland

Toys

Ramphastids do not have the beak or foot dexterity of parrots, thus, finding appropriate toys for these birds can be a challenge; a little creativity (with safety in mind) can help the ramphastid owner keep these intelligent and curious birds interested. Ramphastids enjoy bird safe, non-ingestible toys that they can carry in their beaks and/or bash around in their cages. Cardboard boxes of differing sizes can have holes cut into the sides that allow the bird to get its beak in but not its entire head; fill the box with safe toys the bird can remove from the container but don't be shocked if the container is also made into a destructible toy! Ramphastids will often have a good time swinging and hanging from well-maintained, non-frayed swings and ropes.

Foraging

Birds spend much of their day in the wild looking for food; encouraging foraging in captivity is a natural way to keep our pet birds entertained. A few ideas for foraging include drilling ½ inch holes into bamboo pieces, PCV pipes, clean bottles, and boxes and filling them with the birds' favorite food and treats. Similarly, coconuts, watermelons, and pumpkins can have holes drilled into them for hiding treats. Ramphastids can even be encouraged to forage for their pellets; try putting some smaller toys on top of the pellets in the food bowl so the bird has to remove the toys prior to getting at the food. Alternatively, try covering the food bowl with a piece of paper (start with a few holes in the paper first so the bird can see the food is underneath). Fruit or pellets can be wrapped in parchment paper and tied up in the cage or to a perch so the bird has to "unwrap" their food gift. Always start with simple foraging activities and work up to more complex activities; it is important to make sure the bird is successful at finding its food, especially if they are foraging for their pellets!

Finally, trick training can be a fun way to interact with your bird and can even be used to train the bird to do valuable behaviors such as standing on a scale to be weighed.

Contact your avian veterinarian if you have questions about caring for your Ramphastid bird!













Examples of toucan toys and foraging items.

Photo credit: Adventures in Toucanland (all photos above)

Recommended Resources

- <u>Adventuresintoucanland.com</u> for general care and enrichment information/suggestions and a realistic idea of what is like to own ramphastids
- Goodbirdinc.com for training information
- Avian-Behavior.org for training information
- http://emeraldforestbirdgardens.com for general information including information on breeding and hand-raising babies
- Toucans, Toucanets, and Aracaris Facebook group

AAV: Setting a Standard in Avian Care Since 1980

Avian medicine is a distinct and very specialized field that requires extensive training, advanced skills, and facilities specifically designed and equipped to treat and hospitalize birds. The Association of Avian Veterinarians was established to provide veterinarians with this special education, and to keep them up to date with the latest information on bird health. The AAV holds an annual conference on avian medicine and publishes the peer-reviewed *Journal of Avian Medicine and Surgery*. AAV also makes annual contributions toward avian conservation and sponsors studies advancing the understanding of avian medicine.

For More Information

For more information on birds, ask your veterinarian for copies of the following AAV Client Education Brochures:

- Avian Chlamydiosis and Psittacosis
- Veterinary Care for Your Pet Bird
- Basic Care for Companion Birds
- Behavior: Normal and Abnormal
- Caring for Backyard Chickens
- Caring for Ducks
- Digital Scales
- Feather Loss
- Feeding Birds
- Foraging for Parrots
- Injury Prevention and Emergency Care
- Managing Chronic Egg-laying in Your Pet Bird
- Signs of Illness in Companion Birds
- Ultraviolet Lighting for Companion Birds
- When Should I Take My Bird to a Veterinarian?
- Zoonotic Diseases in Backyard Poultry

Online Resources

Follow AAV on Facebook (www.facebook.com/aavonline) for great tips and the latest news for pet bird owners. You can also find us on Twitter (@aavonline) and YouTube!

Our website, www.aav.org, offers a Find-a-Vet tool to help pet bird owners locate avian veterinarians around the world. We also offer a variety of resources such as basic bird care instructions and more. Visit the website today!

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Photo credit: Adventures in Toucanland



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