DIETS of Softbilled Birds in Captivity

by Martin Vince

First, let's be clear what a softbill is: it's not a bird with a soft beak, but merely a bird that eats soft food, such as fruits, insects, meat or nectar. And, although a softbill will often eat several different foods, it will tend to fall into one of the following distinct, dietary categories: Omnivore, Frugivore, Nectivore, Carnivore or Insectivore. It is these dietary categories and some of the softbills associated with them that are the subject of this paper.

Omnivores

Let's begin by looking at probably the largest group of softbills in aviculture—the omnivores. To accurately describe their dietary requirements it is necessary to divide this category into two parts: omnivores that need more fruit in their diet compared with those that require more meat or insects.

The fruit-biased omnivores include Lesser Green Broadbills, leafbirds, Fairy Bluebirds, most of the tanagers, euphonias, bulbuls, South American barbets, manakins, toucans and many more. For them about 65% of the diet should be chopped fruits including also greenfood such as lettuce or spinach—indeed, some tanagers appear to have a distinct need for greenfood, and if it's not provided are much more inclined to damage plant

The Cinnamon-chested Bee-eater is an insectivore preferring to catch its prey on the wing.

The White-tailed Jay eats almost everything (omnivore) but prefers insects over fruit.

An omnivore, the Lesser Green Broadbill likes about 65% of its diet to be fruits and greens.

The Bali Mynah is an omnivore that is biased towards insects.
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Red-legged Honeycreepers fall into the nectarivore category.

An uncommon bird in captivity, the Fischer’s Turaco is a frugivore.

Guess what the Pink-necked Fruit Dove eats. It is a frugivore.

The Collared Sunbird is a nectarivore that uses its long, curved bill to probe flowers. Nectarivores do well on a commercial nectar mix in captivity.

An uncommon bird in captivity, the Fischer’s Turaco is a fruith eater.

life. The remainder of the diet can be a number of ingredients—mynah bird pellets or any of the proprietary softbill foods can be used to provide the real nutrition necessary for long-term health. The diet can be enhanced with chopped hard-boiled egg and a selection of insects such as mealworms and waxworms. But the livefood is potentially fattening and should only be used in moderation; and, in fact, generally it is not vital in a maintenance diet for birds in this grouping. It is, however, necessary for the rearing of young or as a valuable conditioner to encourage breeding. Nectar is important for certain species in this section. Leafbirds especially need it for good health and, to a much lesser extent, Fairy Bluebirds, manakins and tanagers.

The second group of omnivores represents species that are closer to the insectivores and carnivores in their dietary needs, and includes such birds as mynahs, starlings, jays, drongos, orioles, marshbirds, mockingbirds, mesias, Pekin Robins and, Asiatic...
cuckoos and coucals. For these species a diet of 40% fruit is suitable, with the remainder being a proprietary softbill food or even dog chow. Chopped hardboiled egg can also be added, and because insects are more important for this group, about 5% of the diet should be livefood.

When selecting fruits for your birds, almost everything can be used from spinach and tomatoes, to bananas and pears, including also mixed vegetables. Bananas are sometimes described as toxic. Large quantities of unripe bananas can be dangerous, but used as only a part of a balanced diet, are as safe and valuable as most other fruits. Oranges are sometimes overlooked because of the scouring effect they may have on the digestive systems of some birds. But again, if used as only a part of a balanced diet, they are perfectly safe; and for softbills, such as Red-vented Bulbuls, that cannot synthesize vitamin C, a daily intake of citrus fruits can be very beneficial. Avocados, on the other hand, are well known for being toxic to psittacines but can also be dangerous to softbills, since they contain particularly high levels of vitamin E. This is a fat soluble vitamin: it is stored in the bodies of most animals and can accumulate to the point of being toxic. Therefore, to be on the safe side, avocado should comprise no more than about 5% of a softbill diet, and perhaps its long-term use avoided altogether.

Dried fruits such as sultanas, figs, prunes and apricots can be included in a softbill diet. They should be soaked for a couple of hours in water, and then rinsed very thoroughly before feeding. Many softbills especially enjoy soaked sultanas, but all of the dried fruits are very fattening and must not be over-fed. As ingredients in a maintenance diet, dried fruits are not usually vital. Instead, they are most useful when over-wintering softbills outdoors in unheated accommodation. Dried fruits along with grated cheese and cooked potatoes fuel the body through freezing temperatures and, providing the softbill is particularly hardy, properly acclimated and supplied with an excellent shelter, no harm will come to it. At the end of winter these high energy foods are then removed from the diet to prevent obesity.

**Frugivores**

Of the many true frugivores, few are common avicultural subjects, with the most familiar being mousebirds, turacos and, the fruit doves and pigeons. In captivity these birds do well on a diet of about 70% fruit, mixed with a proprietary softbill pellet and a little hard-boiled egg. High protein foods such as dog chow should be avoided, since in the long term, renal damage or even excessive aggression may occur.

**Nectivores**

Nowadays, nectivores are easy to keep with several, excellent artificial nectars available. Complete diets are manufactured for hummingbirds, which need only the addition of fruit flies. The same nectar is also suitable for sunbirds and spiderhunters. Newly imported sunbirds are usually accompanied by flattish feeding bottles with

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upward facing feeder holes. During quarantine, these should be used to feed the birds until they are strong enough to feed from a dish without falling in and drowning. Or, if an open dish is used, it should be covered with wire mesh. Spongecake, bread, or something like a primate pellet can be added to the nectar, and a separate dish of finely chopped fruits is needed to complete the diet. Spiderhunters particularly like crickets, and most birds in this category benefit from a few small mealworms and waxworms.

A very similar diet is suitable for white-eyes, yuhinas, bananans, honeycreepers and dacnis; the main difference being that the nectar, fruits and cake (or its equivalent) should be mixed together and presented in one dish. And in a separate dish can be offered a fine grade insectivorous diet.

Insectivores

Many of the birds already mentioned can often be seen in private and public collections. Insectivores, however, are not so frequently kept and are sometimes thought of as difficult. But with the right approach, birds such as flycatchers, niltavas, nuthatches, wrens, wren babblers, minivets, Asian trogons and bee eaters are not so hard to maintain, and perhaps could grace more of our zoological collections.

The true insectivores live purely on insects, some birds catching their prey on the wing while others are equally happy coming to the ground for grasshoppers and the like. In the wild, a wide variety of insects, that have themselves fed on an even wider variety of foods, provide the necessary nutrition. But in captivity the very few commercially available insects cannot hope to supply the range of nutrients vital for long term health and breeding. And so in addition to the familiar mealworms, waxworms and crickets, the captive insectivore must eat a more balanced, and by definition, artificial food. Europeans are able to purchase good insectile mixtures from their local pet store. Many of us are not so fortunate, but even if we were, I would still use the same basic recipe my father taught me nearly 20 years ago. A fine grade insectivorous mix is needed for most insectivores. The main ingredient is simply a powdered proprietary softbill Pellet, and if required, powdered truct chow can be added to boost the protein level up to an acceptable 20-25%. But this will probably not be necessary since many proprietary foods are already quite high in protein. Although nutritionally excellent, the dryness of such foods makes them fairly unappealing, even to many captive bred insectivores; and no matter how good the ingredients are, the diet will still be a failure if it is not correctly moistened.

The dry, sand-like powder, can be made palatable by adding tofu or fruit juice or milk or pureed apple, or just plain water. This should be squeezed into the powder so that the food becomes soft, but not saturated. Once this is done, livefood and hard-boiled egg can be mixed in as follows.

Compared with modern, manufactured diets, the nutrition of commercially available insects is somewhat inferior; indeed the tough exoskeleton and fat content of mealworms, and the even higher fat content of waxworms, can be positively dangerous in large quantities. But livefood stimulates the vast majority of insectivores to feed, and is therefore a valuable ingredient — but only in moderation. For long term health it is critically important that this part of the diet is not over-fed, otherwise the softbill will gorge itself on insects and ignore the other, nutritionally vital, ingredients. And sooner, rather than later, the bird's condition will deteriorate to be followed by death. As a guide, if livefood is left uneaten after about six hours, you are probably feeding too much, and the softbill is almost certainly not eating the parts of the diet it really needs. Very generally, about 10% of the entire diet should be livefood.

Hard-boiled egg, especially the white, is also relished by most insectivores, often being almost as popular as the livefood itself. Chopped egg, equal to about 10% of the whole diet can be mixed in with the livefood. The quality of the finished diet is greatly increased if the egg is visible, and finely chopping it by hand, rather than using a food processor, tends to give better results. The insectivorous diet is now complete, with the livefood, finely chopped hard-boiled egg and moistened power thoroughly mixed together.

Acclimating new birds

The diets mentioned so far have been for acclimatized and fairly established birds. Less demanding species such as starlings and many of the other meat-biased omnivores eat most foods, and even when newly imported are not generally troublesome. But for many other birds that are newly imported, or simply newly purchased that have...
already been establish elsewhere, short-term dietary adjustments are worthwhile and frequently essential.

In the wild, trees and bushes with mynah bird pellets growing on them do not exist. It can therefore take a while for newly imported birds to appreciate such foods and initially it is important for frugivores and fruit-biased omnivores to be fed a lot of easily recognized fruits and berries. Once the bird starts eating, the man-made ingredients can then be gradually added, until the correct maintenance diet is arrived at. In the same way, insectivores will require more insects for the first few weeks, by which time a taste for the artificial food will have been acquired—newly imported insectivores, almost instantly eat finely chopped hard-boiled egg since it presumably resembles the insect pupae and larvae they always enjoy.

Not all insectivores, however, are quite so straightforward. A few softbills, such as the Asian trogons and the bee eaters, can be more time-consuming, but are by no means impossible to acclimate. Start with a dish of the moistened powder used in the standard insectivorous mix. On top of the powder place some large mealworms, waxworms and crickets that have all been dipped in thick honey water or nectar—when the insects are eaten, the nutritious powder sticking to them will also be ingested. To begin with it is obviously necessary for the insects to be fairly lively, but after a few weeks movement becomes less important, and inanimate foods such as chopped hard-boiled egg and finely sliced pinky mice are equally enjoyed. And unlike the previous diets, the ingredients should always be recognizable so ought not be mixed together.

**Dinner on the wing?**

Bee eaters, and others that catch their prey on the wing, feel vulnerable coming to the ground to feed, and prefer an uncluttered feeding area that is raised at least 3 ft. off the ground. Sometimes birds will briefly hover and carry off a food item without landing, while other occasions will see them standing on or in the food dish to make a more leisurely selection.

It's not so difficult

We've only scratched the surface of softbill diets. But I hope you've seen enough to realize that softbills are not as hard to keep as you may have previously imagined. The main difficulty with this group of birds has been the general lack of information and literature. But I'm in the process of writing a book on all aspects of softbill aviculture, and when it comes out sometime next year, will hopefully be very useful.