

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.

Photo by Maarten de Ruyter



Photo by George D. Dodge & Dale R. Thompson



Photo by Jack Clinton Elniear

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.



Photo by Mark S. Collins

The Bali Mynah is an omnivore that is biased towards insects.

Pretty Bird... The Right Stuff. The Right Way!



Knowledgeable bird owners know that it takes "the right stuff" to raise healthy and happy birds and that there's a "right way" to do it.

Pretty Bird® is the diet of choice for many of these people and there are several reasons why. We design our diets with the health of your



birds in mind, keeping an eye on the nutritional balance so that your pet is assured of a healthy and happy life. Using the best

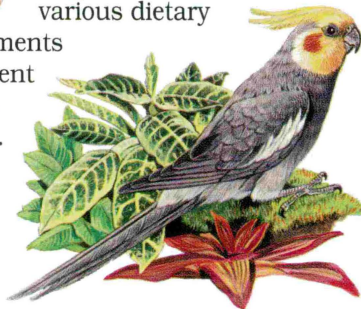


grains as well as the proper amounts and minerals and other dietary supplements to keep your birds in



as the of vitamins and health. We also have taken into account the various dietary

requirements of different families of birds. This means that Pretty Bird



manufactures a line of Species Specific Diets as well as our Daily Select Diets in sizes from Mini to Large. For breeders or pet owners interested in raising their birds from hatchlings, we make four Handrearing formulas with various fat and protein



levels. For a little variety, try our Birly Banquet, a pasta, grain, vegetable and fruit combination that is a nutritious meal for your favorite pet birds. Start your birds out the right way, always use Pretty Bird products for healthy and happy birds.



Please call for more information.
1-800-356-5020

United States

Please call for more information.
0800 614 394

United Kingdom

Pretty Bird®

PRETTY BIRD INTERNATIONAL INC.



Photo by George D. Dodge & Dale R. Thompson



Red-legged Honeycreepers fall into the nectivore category.

Photo by Chuck Dresner



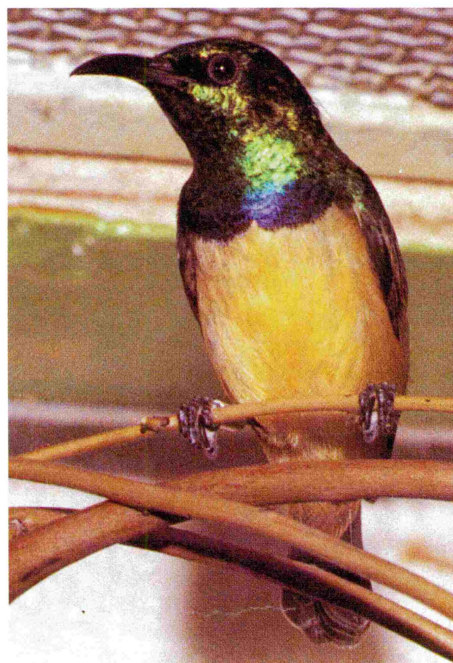
Guess what the Pink-necked Fruit Dove eats. It is a frugivore.

Photo by Sid Milne



An uncommon bird in captivity, the Fischer's Turaco is a fruit eater.

Photo by Rebecca M. Delinger



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

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 poten-

tially 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, drongoes, 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's 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.

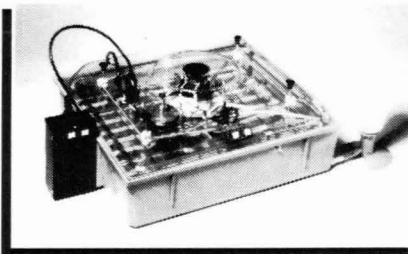
Frugivores

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

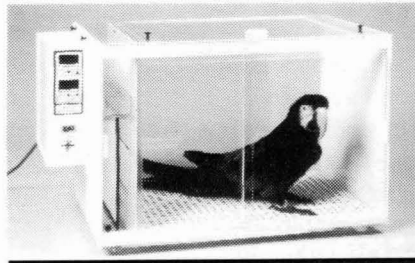
LYONE ELECTRIC COMPANY, INC.



RX-2 Exotic Bird Breeders Favorite Incubator

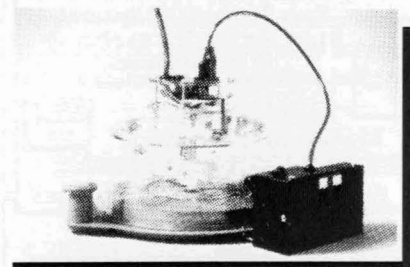
- Solid State Temperature Control
- Preferred By Top Breeders Around The World
- Unparalleled visibility with Impact Resistant Polycarbonate Domes
- Whisper Quiet Fan Motor
- Improved Turner Power
- Unique "Wall of Air" Design on All Four Outside Walls

We also carry a complete line of reptile products including scales, digital thermometers, candler, heating mats, and more!



AICU Intensive Care Unit

- Hospital Unit for Ill or Injured Birds
- Nursery Unit to Hand Raise Young Birds
- Large LED Temperature/Humidity Read Out
- Veterinarian Designed and Tested
- Audio and Visual Alarm
- Provides Safety and Security
- Easy to Clean and Sanitize
- Filtered Air
- Nebulizer Adaptable



TX-7 Incubator

- Preferred and Used by Tens of Thousands of Bird Breeders, Schools and Hobbyists World Wide
- Total Visibility Polycarbonate Dome
- Improved Turner Power Motor
- Solid State Temperature Control
- Unique Humidity Control
- Adjustments Can Be Performed Without Opening The Incubator
- Highly Reliable Mercury Thermometers

Free Catalog Available Call, Write, or Email:
2765 Main Street, Chula Vista, Ca 91911
Tel: (619) 585-9900 Email: lyonelect@aol.com
Fax: (619) 420-1426

upward facing feeder holes. During quarantine, these bottles 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, bananaquits, 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 trout 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 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 acclimated 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

The Wright Roost
Jeri Wright
(206) 838-9802
 NOW HAND-FEEDING
 Hyacinths & other macaws, Cockatoos
 Conures & Amazons
 Domestic, Close-Banded
 Roudybush Distributor



A real treat for your birds!
Macadamia Nuts
 Direct from California growers to you.
 No salt. No chemicals.
 No preservatives.
 Raw. In shell. All natural.
 \$1.90 per lb. (U.S.\$) plus s/h
 50 lb. minimum.
 Subject to change without notice.



We also sell nut crackers so your birds can share with you.

Gold Crown
 Macadamia Association
 P.O. Box 235, Fallbrook, CA 92088-0235
 (800) 344-NUTS

C.O.D. orders OK

OUR 56th BIRDMART
 EVERYBODY'S
BIRD MART
December 1, 1996
 L.A. County Fairplex Bldg. #4
 Pomona, California
9:30 a.m. to 4:00 p.m.
 Admission: \$5.00 - Kids under 12 free
The Bird Mart has become the marketplace for buyers and sellers.
 BIRDS • CAGES • FEEDERS • NESTBOXES
 VITAMINS • SEED • PERCHES • GIFT ITEMS
 PARKING \$4.00
 Use White Ave. parking lot
 (Tram service from parking lot to building G)
 a division of
 J. Williams Financial Services Inc.
 P.O. Box 794, Acton, CA 93510
(805) 269-0424
 The Original, The #1 Bird Mart

already been established 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 larva they always enjoy.

Not all insectivores, however, are quite so straightforward. A very 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 often 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. ➔

WATCHBIRD BINDERS

Hansome, sturdy binder holds a full year's issues of The Watchbird (6 issues). Of rich brown leather-like vinyl embossed in gold. **\$7.00** each

CONTINENTAL U.S.—Add \$2.75 Shipping/Handling for one binder. Add 75¢ for each additional binder.

FOREIGN—Add \$8.00 Shipping/Handling for one binder. Add \$2.50 for each additional binder. Please remit in U.S. funds.

Phone orders accepted using  

American Federation of Aviculture

P.O. Box 56218

Phoenix, Arizona 85079-6218

(602) 484-0931 • fax (602) 484-0109

ALL NEW FOR 1996

SOFTBILLS



Softbills

Care, Breeding and Conservation ISBN 0-934797-11-0 **\$80.00**

Martin Vince

5 1/2 x 8 1/2, SC, 272 pp.

143 color photos

0-88839-393-8

\$24.95

Martin Vince offers an exhaustive volume about the biology and ecology of softbills—birds that live on soft foods such as fruits, insects and meats. A practical and uniquely detailed book, it is based on the author's experience during 20 years of keeping and breeding a large range of softbills. It is sure to become the definitive source for softbill keepers.

Natural History of the Waterfowl

Frank S. Todd

10 1/2 x 13, HC, 500 pp.

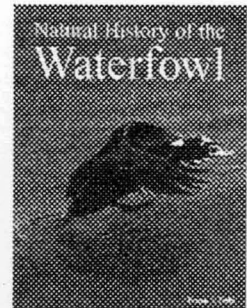
750 color photos

ISBN 0-934797-11-0

\$80.00

Special \$69.95

Until Dec. 31, 96



More than 750 beautifully reproduced photographs of waterfowl in their natural habitat: the most complete photographic presentation of the waterfowl ever published. Frank S. Todd is perhaps best known for his achievements as creator and curator of the largest and most comprehensive collection of waterfowl in North America.



Cranes

Their Biology, Husbandry, and Conservation

Editors: David H. Ellis, George F. Gee and Claire M. Miranda

8 1/2 x 11, HC, 336 pp., 16 pp. of color

ISBN 0-88839-385-7 **\$49.95**

Written by 21 of the world's foremost experts, *Cranes* is the culmination of 25 years of research on these magnificent creatures. Offering a magnificent compendium of crane biology, husbandry and conservation, the book is the most comprehensive and up-to-date tome on cranes, particularly on how to raise them.

Waterfowl

Care, Breeding and Conservation

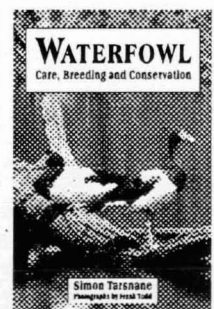
Simon Tarsnane

5 1/2 x 8 1/2, SC, 272 pp.

32 pages of color

0-88839-391-1

\$24.95



Simon Tarsnane has created the ultimate resource for anyone interested in the propagation and preservation of waterfowl. A practical working handbook for both the beginner and the advanced aviculturist, Tarsnane draws on more than 20 years of experience to offer concise and informative data about *all* the waterfowl of the world.

Order From:

Hancock Wildlife Research Center

1431 Harrison Avenue, Blaine, WA 98230-5005

Order Desk: (800) 938-1114 fax: (800) 983-2262

(604) 538-1114 fax: (604) 538-2262

email: hancock@uniserve.com

Ask for free freight on orders over \$100.