

The Scarlet Minivet

and Other Caterpillar Eaters

by Georgann B. Johnston
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The very beautiful Scarlet Minivet *Pericrocotus flammeus*, is a member of the Campephagidae family, birds that fall within the general category of passerines or songbirds.

For some unknown reason, these colorful and clever little birds have had next to nothing written about them in either the scientific literature or in avicultural publications and what has been written is often confusing and contradictory. For example, there are a wide variety of common names given to the birds in this family, with minivets being called everything from caterpillar birds to cuckoo-shrikes to trillers or to flycatchers. For the purposes of this article, we will refer to them as minivets.

Scientific classification of the birds in this family, which is comprised of nine genera, is somewhat confusing as well and the exact number of bird species or subspecies that should be included in this group seems to vary from one authority to another. Generally speaking, ornithologists have recognized 10 species in the genus *Pericrocotus* which include the commonly named Scarlet (with at least two subspecies), Rosy, Ashy, Yellow-throated, Flore's, Small, Long-tailed, Sunda, Jerdon's, and Small-billed Minivets.

These 10 species of birds vary considerably in physical appearance. Size alone is one easy way to distinguish one species from another since the birds can be as small as five inches and as long as 12 inches, measured from beak to tail. Another consistent characteristic is sexual dimorphism, with the males tending to be brightly colored

while the females tend towards a combination of dull yellow or orange alternating with black or gray plumage.

Minivets are found only in a relatively small range in the earth's Eastern Hemisphere. Habitats include the countries of India, Sri Lanka, Borneo, Afghanistan, the southernmost part of China, Malaysia, throughout the lower Himalayas, and occasionally in the Philippines. In fact, it is the birds that populate the Himalayas that fall into the two subspecies of Scarlet Minivets — with the birds living at higher elevations tending towards a more red-scarlet plumage while those living at lower elevations appearing more orange in coloration.

Regardless of locale, the birds seem to like to live in sparsely wooded forests or on hills with moderate brush and tree cover. The birds tend to be sedentary and are not known to migrate any great distance, though they do wander in a nomadic fashion, searching out new sources of food. The only exception to the non-migration rule are, again, those species found in the Himalayas, where cold winters force the birds to relocate to lower elevations to avoid harsh conditions and ensure that they find adequate food to keep them through the harsh and freezing conditions.

These birds are a combination of insectivores/frugivores, dining primarily on invertebrates such as spiders, beetles, flies, and grubs supplemented by buds, berries, and small fruits. Caterpillars are a favorite with these birds, hence the family name Campephagidae, Latin for caterpillar.

While no field studies have been

done to specifically categorize these birds' diets, captive birds (such as minivets at the San Diego Zoo) apparently do well on a combination of mealworms, waxworms, crickets, mixed fruit, and a small portion of soaked cat and dog chow.

In the wild, the search for food is often carried out by large groups of birds, comprised of either extended family parties or of flocks of unrelated birds numbering as many as 150 members. Vocalizations are most common when the birds are in a flocking formation, with some species giving off only a soft and wheezing call while other species communicate in shrill whistles and harsh calls.

The nest of all 10 species of minivets is typically a shallow cup made from twigs, roots, and dried grass. The components are often bound together with spider webs and are camouflaged with bark or lichen so that they seem to be part of the branches upon which they sit. Minivets tend to place their nests fairly high in trees but whether this is to avoid predators or for some other reason is unknown, particularly since much of their food is found at or near ground level. Clutch size can vary from a single egg to as many as three and the eggs themselves vary in coloration, again depending on the species. Many species' eggs are speckled or blotched with a contrasting color such as red-brown or purple-gray. In some species the female handles all the incubation while in others the parents share the burden equally.


Another interesting point is that pairs of a given species often nest in close proximity to one another and there is some evidence that the parents (who both participate in feeding the young) will often feed chicks in a neighboring nest as well as chicks of their own.

According to ISIS records, only five zoos in the United States house minivets in their collections. San Diego Zoo, as an example, keeps one subspecies of the Scarlet Minivet, *Pericrocotus flammeus fobkiensis*, in a mixed flight with Blue-tailed Trogons, Tawny-breasted Parrot Finches, Yunnan Red-tailed Minlas, and Lesser Green Broadbills. The extent and

number of minivets in private collections is unknown.

Finally, despite the fact that these birds are not well known in American or European avicultural circles, at least six of the species have been chosen by various countries as the subject of postage stamps. The web site www.bird-stamps.org/species/ will lead you to the family and eventually to the

individual species that have been honored by such countries as Thailand and Burma with a colorful stamp.

The author of this article is a graduate student in the Avian Sciences Department at U.C. Davis, a lawyer by trade, and rehabilitates bats in her spare time. She would like to thank Wayne Schulenburg of the San Diego Zoo for providing information regarding the captive care of these birds. 

the Challenges of Keeping Minivets

by Frank Tromp, Santa Maria, CA

Due to the limited information available on the captive care of minivets, I volunteered to write this article. After all, Sheldon Dingle already had a photo of a Scarlet Minivet and needed an article or two to go with the picture. There's only one catch to my article and that is that it's more about my experiences acclimating wild-caught birds to domestic diets, than an article on captive breeding Minivets, with which I have no experience. I did, though, recently set up a few aviaries for the sole purpose of attempting to breed these tame and colorful insectivores.

Minivets as a group are endemic to the entire southern portion of Asia, ranging into Indonesia and the Philippines. They are mainly insectivorous, consuming a wide variety of insects and particularly caterpillars, which gives rise to their other name, Caterpillar Birds.

Scarlet Minivets are probably the most beautiful of the group, being bright red and black in the male, and deep yellow and gray in the female, though the other members of the family have similar colors. The Scarlet is also the largest minivet, being up to eight and a half inches in total length. Exporters in Southeast Asia frequently offer the Scarlet Minivet and the Long-tailed Minivet (differing from the Scarlet mainly in its smaller size) for sale. However, they are rarely imported

because of the difficulties in acclimating them to captivity and their subsequent high mortality rate.

Other insectivorous birds, such as Shama Thrushes and Niltavas adjust to captivity and artificial diets much more readily. In addition, though the minivets are brilliantly colored, they don't have much of a song, making Shamas and Niltavas more popular with many aviculturists.

The biggest problem in acclimating minivets is their reluctance to accept inanimate food (food that doesn't move). A diet consisting exclusively of mealworms and crickets may extend their lives in the short term, but eventually ends in their demise in the long term.

The first Scarlet Minivets I imported came from Germany in 1988. At the time I owned a quarantine facility in Canada. The German supplier had done a great job acclimatizing the birds before exporting them to me so they arrived in good shape and readily accepted a diet of ground dog food and ground myna pellets, as well as a few crickets and mealworms. I really enjoyed the fact that these birds were fearless and readily took mealworms from my hand.

Unfortunately, I didn't have the facilities to keep a personal collection of birds once they were released from quarantine, so they were all sold. That was probably a good thing at the time, otherwise I would have kept every-

thing, sold nothing, and been broke in a couple of months.

After I moved back to California, a friend of mine was importing birds from Vietnam and asked if there was anything I wanted him to bring back for me. My immediate answer was "Scarlet Minivets and Pittas."

When the shipment arrived, the minivets were in poor shape. They were extremely thin and would eat nothing but live food. This was quite a contrast to the birds I had imported from Germany a few years before. We tried everything to gradually change the birds over to a dry inanimate food. But, if it wasn't moving, neither were they. Mixing the live food with a dry softbill food resulted in the minivets picking out the worms and crickets and then starving themselves until more live food was offered.

After a couple of thousand dollars in mealworms and crickets had been consumed, and only a bunch of skinny birds to show for it, and still two weeks until quarantine was over, something had to be done. I started mixing ground Cat Chow with prepared Knox gelatin, letting it set over night, then cutting it into small strips and offering it to the birds. We then took the drastic approach and removed their live food and offered only the gelatinized cat food. The birds started to sample this new food and since they were being housed in a large group, once one sampled the food others soon followed. Mortality in the birds dropped considerably, but the birds were still quite thin when they were released from quarantine. I kept a couple of pairs for myself and sold the rest. I told my customers to only pay for the birds they were satisfied with after keeping them for a thirty-day period. The two pair I kept survived, but that's about it.

Then, this past year an acquaintance of mine offered to import Scarlet and Long-tailed Minivets from China for me. During the quarantine period they were fed crickets and mealworms, which they readily accepted, and ground Mazuri pellets which they readily disposed of in search for more crickets and mealworms. Since I was unable to care for the birds during

quarantine, that was their diet. After quarantine, I again was left with many skinny, fluffed-up minivets, who wanted nothing less than abundant quantities of mealworms and crickets.

Previous to this shipment, I was having good luck weaning Shama and Dhyal Thrushes onto a diet of soaked dog food and ZuPreem Primate Diet, mashed together with a fork. I've even raised a few babies on this diet, without the addition of live foods. So, this is the diet I tried on the minivets. At first I kept the minivets in individual cages, like I had with my Shamas. Male Shamas will usually kill other male Shamas. But, keeping the minivets as individuals did not have the best of results in getting them to sample this new food. So, I put them in groups of

five and cut the live food out completely. Within a day they were eating the new diet. Luckily, minivets are relatively tolerant of each other in a non-breeding situation. So, once again the colony approach worked in getting the birds to eat a new diet.

This diet seemed to work better than the Cat Chow gelatin and was much less time consuming to prepare. Within a few days the birds were no longer fluffed and they put on a fair amount of weight, though not to the extent I would have liked. At the time the birds were being housed in my garage and not until they were outside in full sunlight, did they become strong and gain weight to an acceptable level (no sternum protruding).

When the birds started molting, I for-

got that they needed to be color-fed in order to keep those intense colors. Without a carotenoid coloring agent, the males become a peach color and the females a soft yellow. I mix fifty percent canthaxanthine (the same stuff you buy to color-feed Red-factor Canaries) and fifty percent spirulina and place the mixture in a salt shaker. Every other day I add one shake to about three cups of food while it's still slightly warm. This allows the canthaxanthine to dissolve. Then I mix the food with a fork and refrigerate for an hour. The amount of canthaxanthine in the food is so minute that it doesn't change the color of the food. Too much coloring agent will change the female orange rather than yellow and both sexes will exhibit orange skin if too much is added to the diet. This can be harmful to the bird's liver as well.

I currently keep the minivets as pairs in flights measuring two feet wide, eight feet long and seven feet high. The roof is made from Lexan panels, half covered in white and half in clear, as these birds really enjoy sunlight. Minivets seem to ignore most other birds, so that in larger flights they can probably be mixed with smaller softbills and larger finches.

I live along the central coast of California where our summers are foggy and rarely above 70 degrees, so the moist food has worked out well, though in hotter climates it would probably have to be changed twice a day to prevent spoilage. When the food begins to dry out, the birds don't eat it as readily. But, I have found that most of my softbills prefer moistened food to dry and this was the original purpose for trying the gelatin diet, as well as the current soaked dog food and monkey biscuit diet.

Now that I seem to have a stable group of minivets, the next challenge and ultimate goal will be to breed them. Something, I'm sure all of us hope to do with our birds.

Frank Tromp been raising birds since he was nine years old, starting with chickens, then raising quail which he sold to a market in L.A.'s Chinatown. He received a Bachelors of Sciences degree in the department of Avian Sciences from the University of California at Davis.

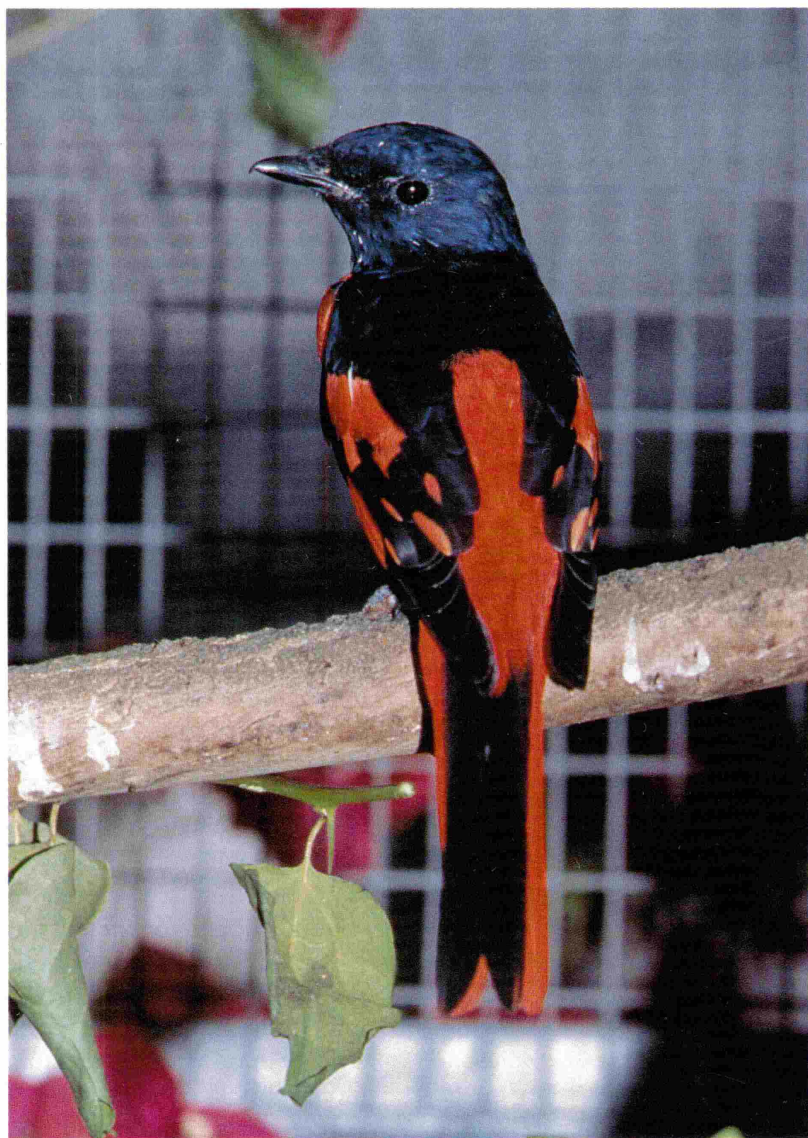


Photo by Ken Kelly, courtesy of the San Diego Zoo

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