

Aviculture's Future Is Now: Establishing Estrildid Finches in Captivity **By Scott Golden**

Forward: In the early 1990's, the African country of Ghana placed every bird that was endemic or migratory through its lands on Appendix III of CITES (**Convention on International Trade in Endangered Species of Wild Flora and Fauna**). Appendix III species are listed after one member country has asked other CITES Parties for assistance in controlling trade in a species. The listed species are not necessarily threatened with extinction globally. In all member countries, trade in these species is only permitted with an appropriate export permit and a certificate of origin. In North America, the Ghana Appendix meant the virtually complete shutdown of importation of wild-caught African finches. **By 1995, almost all African finches had disappeared in the United States**, with the exception of perhaps a few blue caps, fire finches and gold breasted waxbills, which occasionally were still brought in via quarantine stations or through Canadian importers.

During these years, 1993-2006, many European aviculturalists, who were still receiving the finches which had been banned in the United States under CITES Appendix III, worked hard toward establishing many African estrildid species. However, with the advent of widespread outbreaks of bird flu during the last few years, Europe now has a complete ban on the importation of birds. Yet, because of the work of serious breeders, they still retain many African finch species in Europe.

In the United States, due to a change in Ghanaian politics, 2007 brought the lifting of the Ghana Appendix of CITES. This has meant the sudden availability of finches that we have not seen in this country for at least 14 years! Western Bluebills, Goldbreasted Waxbills, Red-Cheeked Cordon Blues, Pytilia, Green, Brown and Rosy Twinspots, Senegal, Kulikoro and Black-Faced Fire Finches, as well as many other species are now available in the US. Soon, without question, imports of wild-caught birds will cease. **One case of bird flu and imports are done. Pressure on airlines from animal rights groups already makes it almost impossible to fly birds out of Africa.**

Some wise man (or woman) once said, "A people who do not know their history are doomed to repeat it"...or something like that. If we have not learned to employ other avicultural techniques to propagate these short-lived

birds, we will lose them again (and probably for the final time). While parent-rearing is a fantastic goal, we must first get the numbers of domestically reared finches WAY up before really allowing ourselves to squander eggs or chicks in the effort to develop parent-rearing strains.

The time to establish these finches is now! In short, we must look at the various species with which we are working as endangered, at least in terms of their status in US aviculture. Other organizations that work with endangered animals (i.e. zoos and species recovery efforts) employ every imaginable technique to produce the next generation of offspring and preserve genetic diversity. Giant pandas are artificially inseminated. Orangutans are pulled from their mothers and human-raised when there is a problem with the natural mother's parenting skills. California condor eggs are systematically pulled, hatches are human-assisted and chicks are human-raised from day 1. The goal of these organizations is, in the short term, to get the numbers of these species up. Secondly, every effort is made to keep the genetic diversity of these species by getting offspring from every available individual. The long-term goal is to see a future where many of these animals remain present. Perhaps there will be enough natural habitat restored for reintroductions. However, with the exponential growth of humans and the concomitant increase in natural resource use/destruction, the real hope for many species lies in the hands of humans who are willing to propagate them for the long-haul.

Our situation with finches is very similar to that of zoos. We have a limited amount of wild-caught birds that have a great deal of genetic diversity. We have the ability to establish them in captivity if we are willing to take some exceptional measures to reproduce them. Once we get offspring that are used to captive conditions and foods, we have a greater chance of parent rearing. Life in the cage is normal for them. A tray of egg food is perfectly acceptable as food for chicks. It is all that they have ever known, unlike their wild-caught parents or grandparents.

The Europeans (Belgians, Dutch and Germans) provide a good example of the successful cage breeding of many estrildids. Europeans tend to cage breed 1 pair per flight, foster the first couple of generations and they have made monumental progress in establishing many species. We even have these same people to thank for most of the established Australian species and most certainly their mutations. It was the Europeans who did the tough work. We just imported them from Holland and Belgium after they were

established there. Have you tried getting birds out of Europe lately? It is almost impossible. We must turn to *our own abilities* if we are to continue growing this hobby.

So I ask many of you who have been content to see clutch after clutch of chicks tossed to begin thinking outside of the box. We must use other techniques, such as fostering, to get our F1 and F2 generations. **IMPORTS WILL STOP**, either tomorrow or sometime down the road. What we do **NOW** will determine what types of finches we have in the future. Personally, I want to still have Western Bluebills, Rosy, Brown, Green and Dybowski Twinspots. What do you want?



Female Western Bluebill (*Spermophaga haematina*)
Sufficient numbers of these birds have recently been imported to enable their establishment in American Aviculture.

Quarantine and Acclimatization of New Birds:

If you are wise, you will quarantine new birds for 30 days or longer. Every new bird brought into your aviaries represents a possible source of contagion that could wipe out every bird that you have. Ideally, new birds should be isolated in a separate building from your current collection. Feed these new birds last and change your clothing before re-entering your already existing location. Bacteria, but most worrisome, viruses, can be moved from location to location via clothing or hands.

If any kind of illness develops, a veterinarian may be consulted. However, most vets have little experience dealing with bird-related diseases. Plus, due to the small size of finches, they have little ability to resist disease for long. Therefore, it is important to have an arsenal of medications on hand.

Recommended Medications/Supplements

15 years ago, there was very little in the way of medications for cage birds. Time has changed this situation! With some advanced preparation, many finches can be saved that would otherwise have died in previous years.

Ronivet-S*: Treatment of choice for birds suffering from protozoa infections including canker, giardia, cochlosoma, and hexamiter. Water-soluble and water stable, it has extremely high safety margins. It can safely be used at any stage in the birds breeding cycle. Mix 1 teaspoon per quart of drinking water for 7 days.

Amtyl* Broad-spectrum antibiotic dissolves easily in water. Amoxicillin trihydrate(150mg / g) and Tylosin tartrate (100 mg / g) are combined to produce a highly effective and safe antibiotic to treat a wide range of bacterial infections. Includes directions for administering in the drinking water or directly into the crop. We recommend you follow up with probiotic to reestablish the gut flora after antibiotic treatment.

Doxycycline: Doxycycline is a broad spectrum antibiotic for birds with bacterial diseases, ornithosis, psittacosis, one eyed colds, respiratory infections and chlamydia infections.

Baytril: Treats a wide range of bacterial infections in birds. Mix 2ml to a quart of drinking water for the first 4 days, then mix 1ml to a quart of drinking water for the remaining 6 to 10 days. The medication of choice for Paratyphoid, E-Coli, Ornithosis, and Respiratory infections.

Amphotericin-B: Megabac-S is a unique water soluble formulation of Amphotericin B. Megabac-S has proven effectiveness against Megabacteria in caged and aviary birds.

Medistatin: Contains Nystatin 400 000 i.u./g. The only Nystatin powder specifically for birds. Ideal for crop dosing baby birds, for prevention and treatment of Candida in birds. Nystatin is the choice for most fungal problems. Has been used with great results for Stargazing /Twirling in birds. For treatment: mix 1g to 20ml of water give 1ml per 100g bodyweight twice daily in crop for 7 days. For prevention: mix 1g per 200g of soft food daily for as long as symptoms prevail.

Probiotic*: Nine strains of probiotic work together to promote normal gut flora and a healthy digestive system. Essential after times of stress or antibiotic treatment. Can also be added to hand feeding formula to improve the chick's immune system. Contains 180CFU/gram Use just 1g per liter.

SCATT*: A safe, effective treatment for air sac mites and scaly face mites

Avian Insect Liquidator: Safe for birds, deadly to insects including mites and ANTS! Safe enough to spray on even newly hatched chicks, AIL kills insects on contact and the residual action guards against reinfestation for 6 weeks.

Worm Out Gel*: Water soluble wormer in a pump bottle. (Praziquate 120g/L and Oxfendazole 20g/L) Can be administered in drinking water or directly into the crop. Two-day treatment is effective against threadworm, tapeworm, roundworm, caecal worm and hookworm.

(*=*REALLY necessary*)

A course of antibiotic medication should last 7-10 days, followed by 7 days of antifungals. Antifungals should then followed up by probiotics. Many finches die of fungal infection (aspergillosis) after antibiotic treatment because fungi are often the first to recolonize a bird's digestive tract after

medication. If not controlled, fungi can overwhelm the bird's system and lead to death of the bird.

Although there are many suppliers of these products, *All Bird Products* (www.allbirdproducts.com) has them all. Plus, they are a California company and can get these necessities to you right away.

If a viral problem occurs, it is vital that your sick birds are separate from the rest of your collection. Many viruses are spread via fecal material or shed in feather dander. An air filter with a hepafilter, small enough to trap viral particles, may be of help. Additionally, cleaning all surfaces with bleach water may lessen the chance of the viral disease spreading. With time, birds that survive a virus tend to develop an immune response and may inactivate the virus.

If your bird(s) die, many county veterinarians offer a full, low-cost necropsy service that can give you very valuable information as to what is affecting your finches. The county vet here in San Diego has an after hours/weekend drop box (refrigerated, of course). DO NOT freeze dead specimens. It makes them useless by exploding the cells. The best thing to do to preserve the specimen is to wet the dead bird with clean (bottled) water and place it in a sealed zip loc in the lowest and furthest back part of the fridge, where it's coldest. The sample will be (essentially) useless after 72 hrs. The cooler the specimen and the quicker the drop off, the better.

“Now That My Birds Are Through With Quarantine, Now What?”

Set them up to breed!! The average finch has a reproductive lifespan that is, at most, only a few years. *If we are to establish new birds in captivity, we must be able to produce a significant number of offspring from them and do it quickly.* The Dutch, Belgians and Germans are true masters at this. If it were not for the efforts of European aviculturalists, most of the finches established currently in the United States would not exist here. The constant importation of European-bred Australian finches provided most of the foundation stock for the strains of these birds currently in the US.

The basic premise of breeding these birds is as follows (and I know, it goes against what many of us are doing!):

- **Cage breeding**, 1 pair per cage
- **Pulling eggs from your wild caught birds and fostering them under societies** (or other potential foster parents)
- **Supplemental hand-feeding chicks** to assure proper growth and fledging (It REALLY is not that hard!!)
- **Retaining most, if not all of your F1, or first generation offspring.** These birds are worth their weight in gold towards establishing a strain of birds.

If I haven't completely overwhelmed you, read on! We can do this! Remember, in the 1950's and 1960's, Lady Gouldian and Red-Headed Parrot Finches were almost impossible to keep alive in captivity. They are now firmly established in aviculture because of people like you, who were not afraid to step to the plate and take on the challenge.

Recommended Breeding Set-Up:

- **1 pair per flight** or cage is ideal.
- **Indoor breeding** is FAR preferable, even in sunny Southern California. Indoors, many **variables can be controlled** (weather, predators, rodents, etc)
- **Boxed cages** work very well. In a box cage, all sides of a cage, except the front, are blocked via cloth or solid panels. This greatly increases the wild-caught birds' sense of security and increases the likelihood of nesting.
- **Provide a variety of nesting sites:** whicker baskets with artificial foliage, traditional finch nest boxes, Christmas 'evergreen' type garlands, dried grasses and brush are all good examples of what should be offered.
- **Provide a variety of nesting materials:** coconut fiber, soft dried grasses, sisal, jute, white feathers from a pillow (very important for many African species).
- **Artificial lighting, on timers, should be on every cage.** My birds' lights go on at 6:00AM and off at 10:40PM.

If all goes well, your wild-caught finches will calm down and become adjusted to life in captivity. In most cases they will lay fertile eggs, but

rarely raise the young to completion. These young represent the future success of these species in captivity and must be saved! (Think of the effort the San Diego Zoo made in establishing the California Condor or New Zealand with the Chatham Island Robin).

“I have fertile eggs. Now What?”

Congratulations! You are halfway there! You must foster these first eggs to insure that the genetics of your wild-caught finches are not lost if something happens to the original birds:

(Murphy’s Law of Birds: The birds you can least afford to lose will be the first ones you discover upside down, dangling from the tip of one toenail that got caught on a wire).

A bit on fostering:

- Many finch breeders feel that fostering is wrong or that birds that have been reared by foster parents will not rear their own young.
- This has no scientific basis! None. Zilch.
- Our failure to use the strongest tool in our finch-breeding arsenal in the 1990’s (FOSTERING) led to the almost complete disappearance of African finches in the US until the recent imports of 2007-2008
- Fostering fertile eggs enables us to get the first generations of domestically bred finches (F1 and F2) established. These birds only know life in captivity and are MUCH more likely to rear their own young on the foods you provide.
- I use exclusively the old-fashioned, American brown and white society finches for fostering. I have found that the Euro societies, though very pretty, are vastly inferior when it comes to fostering.
- Younger societies that have never raised their own young are ideal for new species. They eventually see the new species as ‘what their own chicks look like’ and do a fantastic job of raising them.

How to Set Up Societies as Fosters

Note: Societies are really worth their weight in gold. They are extremely dependable as foster parents for most species of estrildid finches. However, societies may harbor some bacteria or protozoa to which they are completely immune and the fostered species chicks are susceptible. It may be wise to put your societies on a thorough antibiotic-antifungal-probiotic regimen before setting them up as fosters. To be very careful against possible chick-killing pathogens, put your societies on a 10-day cycle of Amphotericin-B. Amphotericin-B is a powerful anti-protazoal/ameobal/fungal agent. Some Societies harbor something called 'mega-bacteria,' which, as I understand it, is a misnomer as megabacteria isn't even a bacteria. The organism is actually a powerful and difficult to eradicate yeast. Megabacteria causes few problems with Societies, but many other species of finch, and especially their chicks, have a difficult time with it and often die upon exposure through feeding by foster parents. As far as I know, the only effective way to eradicate it is through the use of Amphotericin-B.

- Small, divided breeding cages work well for society finches
- Whicker baskets or externally mounted nest boxes (my new favorite) work well.
- It doesn't matter what sexes your societies are: 2 males, 2 females, trios of males or females, or any combination of the 2 sexes are just fine! Really! Personally, I prefer 2-3 males as fosters, as it is easier to regulate their incubation.)
- Synchronize your societies' incubation to match that of the eggs to be fostered by the use of the blue plastic canary eggs. Societies do not care about the color. Put one a day in the societies' nest until you have a clutch of 5 or so canary eggs. 99% of the time, the societies will begin brooding these fake eggs. If they bury them in nesting material, dig them out and do it again! It works. Trust me. By the way...interested in some swampland in Florida?
- When it is obvious the societies are brooding, remove the nest box and fake eggs. Make a small mark on the eggs to be fostered using a Sharpie marker (just in case the societies start to lay their own clutch, you can remove unmarked eggs).
- Use a plastic spoon to put the fostered eggs in the nest ...carefully!
- Put nest back in the society cage.
- Societies should begin brooding new eggs promptly.

- Often, I place a small utility towel on the bottom of the societies' cage as sometimes societies accidentally take an egg with them if they quickly exit the nest. If a towel is on the bottom of the cage, most eggs land, unbroken, and can be placed back in the nest.
- On an index card, write the information about the parents of the eggs being fostered (i.e.: species, which cage if you have more than one pair of that species, and hatch date-generally 14 days from the start of incubation)

“The eggs have hatched! Now what?”

- First, get excited! After you have done that, it is time for you to supplemental hand-feed the chicks (**MOST SOCIETIES WILL START FEEDING UNFAMILIAR CHICKS AFTER A COUPLE OF DAYS. YOUR JOB IS TO GET THEM TO LIVE THAT LONG!! THIS IS NOT HARD. IT JUST AKES A BIT OF EXTRA TIME AND TLC**)
- I use the small banding tool that comes with split plastic bands as my hand feeding implement. It is perfect for the job.
- In preparing your hand feeding formula, float a smaller bowl in a larger bowl of relatively warm water. Mix a very small batch of formula (I use Exact Hand Feeding Formula) in the floating bowl. The warm water in the larger bowl will keep this hand feeding formula warm.
- Remove the nest from the society cage. Remove chicks with a plastic spoon. Dip the end of the hand-feeding tool in a very 'liquidy' part of the formula (i.e. not too thick). Gently insert tool into the mouth of the begging chick, with the groove (food-containing portion) facing the chick's tongue. The chick will lick the food out of the groove and will see the food in the crop along the chick's neck.
- Do not over-feed, as you can aspirate the chick by forcing food into its lungs.
- I feed new chicks before work (6:30 AM) and 2-3 times after the work day (4:30; 7:30; 10:30PM)
- Within a couple of days, your societies should be feeding the new chicks relatively well.

- In subsequent clutches, try to give the societies the same type of fostered eggs. Often, they will start feeding these chicks from day 1, recognizing them as their own.
- I will continue to supplemental hand feed chicks to assure their proper growth and fledging.

“I did it! My chicks Fledged!”

With a little hard work and some time, you will be saying these words. *A very important caveat is to make sure to remove your fledglings once they are independent and place them in flights with adult members of their own species.* This will assure that the chicks will adopt the songs and behavior of their own species. Song assumption and even sexual attraction or bonding can occur towards the foster parent species if young, independent fledglings are not placed with their own kind.

Now, my biggest bit of advice:

DO NOT SELL OR GET RID OF THESE CHICKS. IF YOU DO, YOUR BREEDING PROGRAM WILL BE DOOMED TO FAIL WITHIN 2 YEARS.

Yikes! I know it sounds kind of harsh, but that is the most honest, heart-felt advice I can give you. This F1, or first generation of chicks removed from wild-caught stock are going to be used to your schedule, your food, your avicultural techniques AND WILL BE MUCH MORE LIKELY TO BREED WITHOUT THE NEED OF FOSTERS. That is the true goal: to establish these birds in captivity, where they will breed on their own under domestic conditions.



Juvenile Pintail Nonpareil Parrot Finch (*Erythrura prasina*) that was foster-reared. She has gone on to successfully rear her own chicks.

Other Notes and Further Bits of Advice:

- Close band your chicks whenever possible. At the very least, color-band family lines so you do not breed closely related birds together. Keep records of which young are produced by which pairs.
- Never buy just one pair of a species, particularly a rare species. Often, something beyond your control happens to one of the birds. Whomever you got the birds from no longer has any available and there you are, with a beautiful bird that will never be bred. Buy as many pairs as possible. 3 pair, genetically speaking, is the minimum number of pairs you should first obtain.
- Work closely with other breeders in establishing the same species. This allows you to trade young or obtain other bloodlines.
- Join other groups/clubs and educate yourself. Recommended groups:
 1. National Finch and Softbill Society (www.nfss.org)

2. Yahoo! Groups has many finch groups, including one for NFSS, African Finches, Parrot Finches, Gouldians and MANY others. Check them out!
3. Queensland Finch Society (Australia) (<http://www.qfs.org.au/>)
4. Waxbill Finch Society (England) (<http://www.waxbillfinchsociety.org.uk/>)

Please feel free to contact me at scottgoldensd@hotmail.com if you have any questions!

With some current hard work, we can firmly establish many of these rare species in American Aviculture. Are you ready for the challenge?

Biography of Scott Golden:

Scott's expertise comes from over 35 years of breeding many different species of birds. As a young boy growing up on a farm in Oregon, he raised many types of ornamental chickens, pheasants and pigeons. He was often seen riding a bike through his neighborhood with a barred rock bantam hen on the handlebars!

Scott has been breeding finches for 28 years. His finch passion started with a pair of zebra finches. He has bred some extremely rare and challenging species, such as bamboo, peales and pintail nonpareil parrot finches, painted finches, twinspots and western bluebills. He is currently concentrating his efforts on establishing many of the recently imported African finches that have come into the country in the last 6 months. "We lost all of these birds in US aviculture in the early 1990's" Scott states. "I honestly thought we would never see some of these species again. We can establish them, if we only choose to make the concerted effort it will take." Scott is doing his part to keep many of these rare and beautiful finches from once again disappearing from aviculture in the US. Please join him in this effort.