Journal of the

# National Finch & Softbill Society

Volume 22, No. 6 November/December, 2005



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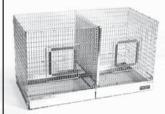
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## Journal of the National Finch & Softbill Society

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## **NFSS Mission Statement**

The National Finch & Softbill Society is dedicated to the introduction for the enjoyment of keeping and breeding Finches and Softbills to all interested parties, enhance the knowledge of our members in keeping and care of these birds, encourage breeding programs, and cooperatation with other organizations for the preservation of aviculture in this country.



This issue's cover is of a Contenental Chestnut Flanked White Zebra Finch by Richard Renshaw.

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#### EDITOR'S COMMENTS

What a year this has been! I appreciate everyone's patience as we finally get back on our regular publishing schedule. With a new printer, a new mailing house, and new duties (for me), it certainly has been a challenge.

I hope everyone enjoyed the last issue dealing with softbills. It is so hard to find information on the care of these fascinating birds. You also may have noticed that we included a few color photos in the last issue. This is something we will be doing more and more in the future.

Mrs. Gertrude Noble, our new "Associate Editor," has been an editor, proofreader and copywriter in the publishing field for nearly 50 years. She was editor of the Central Indiana Cage-bird Club, editor of the Indiana Bird Fanciers and editor of the Hoosier Bird Buddies (formerly Hoosier Exotics). She has been a member of numerous bird organizations, including AFA, NFSS, and the Society of Parrot Breeders & Exhibitors, where she also served as the SPBE Journal editor. Gerta is a stickler for good grammer and spelling, both of which I sorely lack!

The holidays are almost upon us, so don't forget that a NFSS membership would make a great holiday gift. Give a membership to your "parrot-loving" friends, so they can learn about the really challenging birds – finches & soft-bills!

Until the next issue . . . . . Harry Bryant, NFSS 2<sup>nd</sup> VP/Editor



## NFSS President's Message November/December, 2005

#### Tsunami, Floods, Hurricanes and Avian Flu 'H5N1' ... OH MY !

2005 has been a year full of catastrophic events... and then the Avian Flu. The AVIAN FLU EXOTIC BIRD POLICY from the National Avian Welfare Alliance (NAWA), on page 43 is a must read if you have a bird. Drafted by NAWA president Steve Duncan, it is the clearest summary of what is hitting us and was prepared specifically by avian interests (NAWA) with NFSS support, and is our active input to the USDA on this virus.

The NFSS Election results were announced at the NCBS in Dallas, Tx. Welcome to all of the newly elected NFSS Board Members:

- Sally Huntington.....President
- Wick Goss.....1st Vice President
- · Harry Bryant.....2nd Vice President, Editor & Website Manager
- Daniel Gonzales...3rd Vice President
- Cecil Gunby....4th Vice President
- Brenda Josselet....Membership Director
- Jim Heffernan.... Executive Secretary
- Bob French....Treasurer
- Doug White....Liaison Officer
- Alama Honeu....Finchshop Manager
- Bob French....Region 1 Vice President
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- Gertrude Noble...Region 4 Vice President
- Terry Cox...Region 5 Vice President
- Raspberry...Region 6 Vice President
- Roberto Rosa...Region 7 Vice President
- Alfred Mion...Region 8 Vice President

and thanks to all the outgoing NFSS Board Members. Changes are always welcome but certainly we will all miss the help and guidance of: Armando Lee (1st Vice President); Randy Taylor (3rd Vice President); Martha Wigmore (4th Vice President); Martie Lauster (Membership, Executive Secretary & Journal Editor); Mark Phelps (Treasurer); Darla Dandre (Liaison Officer & Awards Manager); Patrick Vance (Region 3 Vice President); Clint Harris (Region 4 Vice President); Anna Sinclair (Region 5 Vice President); Robert Mehl (Finchshop Manager & Membership); Linda Hughes (Membership Director); Myra Markley (Website Manager) and anyone else I may have missed!

Thank you for your time and dedication.

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## **Finches in Aviculture**

#### by Robert Black

#### Zebra Finch Breeding

Zebra Finches are one of the two best finch species for new finch enthusiasts and for young people who are keeping their first pairs of birds. The other species, of course, is the Society Finch, often called the Bengalese Finch. Zebras will make a breeding attempt anywhere, and under virtually any conditions, but this does not mean that the attempt will be successful. Often the first breeding attempt is unsuccessful with the eggs abandoned, the eggs covered with more nesting material, or with the parent birds simply too fidgety to brood their eggs for successful incubation.

Always keep in mind that Zebra Finches, even in their natural Australian habitat, are colony breeders. Most of the pairs need the stimulation of several other pairs in order to breed successfully. The constant interaction, socializing and bickering are necessary to stimulate successful breeding. The few pairs that will breed successfully alone and without others of their species nearby are the exceptions that prove the rule. Most pairs will need this interaction and constant bickering in order to complete their breeding cycle.

Healthy Zebras will breed at any time of the year in any indoor enclosure, or in an outdoor aviary and under most weather conditions. Only temperatures below freezing will stop their breeding, as these tiny birds are not able to keep their eggs warm enough to hatch in temperatures that drop below freezing. If Zebra Finches are not breeding, something is wrong. The problem may be inadequate nutrition; it may be night panics caused by sudden shafts of light, small or large predators, or pets; it may be extremely cold weather if the birds are outside; or the cause may be something entirely different. A little detective work may be necessary to discover the cause of breeding failure in the Zebra Finches.

I once visited a breeder who maintained a collection of Zebra Finches in an outdoor aviary. The birds were large and in beautiful condition in a spacious aviary, but intuition kept nagging at me that something was wrong. Several hours after leaving the location, I finally realized what had bothered me about this collection of Zebra Finches. There were no babies begging in the aviary! In any aviary of Zebra Finches that I have ever kept, there are always newly fledged babies begging anything with feathers for food. This aviary had no babies whatsoever, a dead giveaway that something was desperately wrong.

There is no substitute for your knowledge of the normal behavior of vour birds. Only when you are completely familiar with them will you be able to spot anything unusual. After recognizing any condition that is unusual, you will be able to correct any problem that has appeared. These birds can give us an endless amount of pleasure if we take the time to learn about their normal behavior. their nutritional needs, and their need for adequate space and calm surroundings. Take the time just to watch your birds, and they will teach you a great deal about what they require for good health and successful breeding.

## **Crème da la Creaminos** The Creamino, Lutino, and Ino Mutations in Estrildid Finches

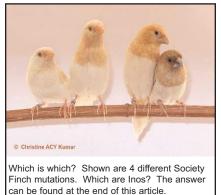
## by Christine ACY Kumar



Shaftail Chicks, Creamino hens on each end

My obsession for Creaminos is HUGE! I guess you could say that I have this 'thing' for off-white finches with glowing red eyes. I cannot explain it really other than to say that they appeal to my personal sense of esthetics. Take a bright white bird, add just a dash of café au lait coloring, ignite its eyes, and I'm inexorably drawn in, like a luna moth singeing its wings on a ruby red flame. As such, I've been collecting red-eyed off-white mutations in Societies, Zebras and now even Shafttails. I have tried to be good. Honest I have. I trimmed my flock back and sold all my Creaminos once. Then like a salmon which must return to its point of origin, I find myself being lured back to Creaminos time and time again. I've finally just realized I have a problem when it comes to the Creamino mutation. They say the first step towards getting better is to recognize your problem. I fully admit that I am obsessed with the Creamino, and now things are definitely getting better. I have a bird room FULL of Creaminos!!! How can it possibly get any better than that?

FISHING FOR CREAMINOS: I was Creamino-less until the October 2003 NYFTCC Bird Show when the Creamino hook was dangled before me, well baited I might add. I confess that I got reeled in without much of a fight either. In my need to blame someone, I must state that Michael Marcotrigiano is partly responsible, having pointed out a completely tailless Creamino hen cutie cowering over in the corner of her cage in the bird sales area. "I'll just check her out", I told myself. How could I not? I rose



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to the bait, peering down into the cage at her. Sure, she was a bit too white, definitely too small, off kilter appearing without her tail and a tad too horizontal for my liking. But she was a CREAMINO after all! Bait taken. "Her tail will grow back," I told myself. Hook set. Her fiery red eyes flashed at me. I ran with the bait, line peeling off, the reel singing and smoking. It was definitely time to start reeling me in when Michael said to me, "She's only \$5". "IMAG-INE!" I uttered to myself in total disbelief, "A CREAMINO HEN FOR ONLY FIVE BUCKS??!!" What sane finch keeper could possibly resist, no less one such as myself who has borderline OCD issues when it comes to Creaminos to start with? The gaff went in effortlessly. The gears in my mind whirred to life as I instantly began to imagine the breeding possibilities in my head. The tail rope was slipped on. Like an unblinking, hypnotized, pie-eyed automaton, I laid my five spot on the table and pushed my carry cage forward. With the final act of placing her into my cage, I conceded that there was simply no escaping the allure of her Creamino seduction. Hauled over the gunwales, I was caught again!

**CREAMINO CASINO:** I christened my precious find Lehigh, after a local diary in eastern PA. Serenaded by the melodious notes of various Cardeulan mules and accompanied by the busy hum of a room full of finch and type canary aficionados, I'm not ashamed to admit that I rekindled my love affair with the Creamino Society Finch, not that the flames had ever really been fully extinguished. It took me a few months to locate an acceptable Chocolate Gray/Creamino mate for her, but Connie Cuthbert of Wings Aviaries had just the cockbird I was looking for. Lehigh was particularly fecund, both were excellent parents, and they gave me 10 visual creaminos in about six month's time. One unusually joyous clutch revealed five Creamino chicks and only one normal. With that one clutch, the number of visual Creaminos in my bird room tripled. It was like hitting the Creamino lottery. Jackpot!

CREAMINOS AGAIN: Like my broken vow to trim back on Society (Zebra and Gouldian) mutations, some time ago I had also sworn I wouldn't start with any new finch species, and if you are a color breeder then finch mutations really are like potato chips. You truly cannot have just one. Or even two bags, that is! Once you catch the finch bug, the seemingly infinite number of finch species and mutations stretch out before you like future endless lazy days on that first glorious morning of unharried summer vacation. In a moment of delusional self control, I had avowed (only to myself thankfully) that I wouldn't exceed the limit of a half dozen species, no matter what. I remember telling myself that six was a good, round, reasonable, sane and unobsessive number of finch species. However, that was before I met the Creamino Shafttail (Poephila acuticauda) which simply put - is to DIE for. Upon first introductions, I was absolutely and irrevocably smitten. So who can blame me for getting reeled in yet again last fall and accepting a gorgeous male Creamino Shaftie as a birthday gift from my good friend, John Gikas? My species controlling super ego hadn't a snowball's chance against my overpoweringly dominant and insatiable Creamino id.

So what exactly is this irresistible Creamino color mutation, and why am I so enamored by it? Why does my self control cave, my knees quake and my heart beat faster upon the mere mention of a Creamino? In this article, I will discuss the currently available Ino finch mutations which are usually referred to as either Creamino or Lutino. There will be particular emphasis on the Creamino. All mutations discussed, save one, are sex-linked recessive. I will not be discussing the Albino mutation in much detail.

**KNOWN & READILY AVAILABLE CREAMINO FINCHES:** The Creamino mutation occurs in at least two commonly kept finch species: a) the Bengalese Finch (affectionately called Bengies) primarily known here in the United States as the Society Finch; and b) the Longtailed Grassfinch AKA the Shafttail Finch (affectionately called Shafties), of which the red beaked subspecies, the Heck's Grassfinch, has become the dominant variety found in US aviaries. In Shafties, many people refer to the Creamino mutation by the common moniker 'Cream'. I am currently unaware of any other commonly found finches which definitely have the Creamino mutation/phenotype.

**CREAMINO DESCRIPTION**: Also sometimes simply known as "Ino", in Societies the Creamino first appeared in Denmark and then reached Holland by 1985 <sup>1</sup>. From there, the mutation spread to all corners of the world. Creamino feather pigments are strongly reduced such that the base feather color is faintly off-white topink blushed dark cream. For those with haunting nightmares of standardized tests, here's an analogy: Espresso is to the Chocolate Society as Caféau Lait is to the Creamino. In other words, imagine steaming hot cream splashed with espresso, and you pretty much have the color intensity of the Creamino. Creamino is actually a par-ino (partial ino) mutation while Albino completely lacks pigmentation due to a knock-out mutation in tyrosinase, the essential rate limiting enzyme requisite for all melanin biosynthesis <sup>2</sup> (Please see 'Ino Mutations' discussion below). Lutino is another example of a par-ino and is discussed in more detail in the 'Ground Color', 'Lutino Gouldians' and 'Lutino Parrot Finch' sections below.

In Societies, ideally the head, bib or breast, tail coverts, back, rump and vent are dark almost pinkish cream whereas the wings, tail, and belly regions are lighter cream approaching white. The belly scale markings are darker than the background feather color and should match the intensity of the bib/breast markings.

In Shafties, the overall body color is a consistent shade of light cream. Bib, eye and trouser markings on the Shaftie Creamino are several shades darker than their light creamy body color.

All Creaminos have translucent bunny rabbit pink or ruby red eyes. This condition is known as ocular albinism or ocular hypopigmentation when just the eyes are affected. In the most severe cases called oculocutaneous albinism, skin pigmentation is affected in addition to the eyes <sup>3</sup>. Creamino irises essentially lack any pigment and as such, the reddish-pink color visualized is actually the color of blood coursing through their eye capillaries. I jokingly call my Creaminos "little devil birds" due to their seemingly otherworldly glow-in-thedark red eyes. Those who are familiar with the Albino mutation in rabbits or rats should know this red eyed phenotype, and for the purposes of this discussion, this is the color I am referring to when I say 'red' eyes. If you shine a light on one side of a Creamino's head, the eye on the opposite side will be illuminated by an eerie reddish-pink glow. Due to the Creamino mutation, there is very little eye pigment to absorb light. Therefore, light is transmitted through one eye and literally passes completely through the bird's head, exiting out the other eye on the opposite side. This can really be a bit freaky and when backlit, Creamino red eyes appear borrowed from a Hollywood B-rate horror film's special effects studio.

Another obvious feature of the Society Creamino mutation is the beak color, which is without even the slightest whisper of pigment. Furthermore Creamino nails, skin, feet, in fact essentially all body parts haven't any melanin pigments, and in Bengies these body parts appear pink and colorless. As chicks, Creamino Shafttails also have colorless beaks. Upon maturity, Creamino Shafttails retain their Heck's bright red beak since Shafttail beak color is due to deposited carotenoids, not melanins, and is therefore completely unaffected by the Creamino mutation. Again, Creamino Shafties also retain their red feet/legs as adults. All Creaminos lack colored mouth markings creating husbandry challenges as discussed fully in the 'Husbandry Issues' section below.

**FEATHER PIGMENTS**: In order to fully appreciate the Creamino mutation, it is best to understand a little bit about feather pigments. There are several ways to create the spectrum of plumage colors we see in birds. Dietary carotenoids add red, yellow and orange while amino acid-derived melanin pigments are responsible for black, rust, gray and brown. In addition, structural modifications along with pigments create colors such as blue, green and purple. Differences in refractive indices resulting in interference create iridescent or metallic feather effects <sup>4</sup>.

Societies and Shafties have only one type of feather pigment, the melanins. This is true for Zebras also, as we shall see later. There are two basic classes of melanins, the eumelanins and the phaeomelanins, which are separated and classified as such by color, solubility and the ability of phaeomelanin to fluoresce in UV light. The structure of both melanins is not currently well understood although they are believed to be made of chains of indolic polymers. Eumelanins are primarily responsible for dark brown, gray and black pigments, whereas phaeomelanins are responsible for warmer rust, brown, chestnut, burnt orange and even yellowish pigments <sup>5</sup>.

**COLOR MUTATIONS**: Chocolate is the normal and darkest Society background color. For Shafttails and Zebras, Normal or Wild Type is the darkest available variety. Essentially all color mutations reduce the amount or otherwise affect one or both types of melanin, spawning the amazing array of color mutations we have available today. Totally white feathers result from the complete lack of any feather pigments and can be caused by either albinism, full pied or the white mutations. Shades of gray, warm brown or off-white can be created by altering how much of which melanin pigments are deposited into developing feather follicles. Various feather mutations modify the types of melanin visualized and/or the amount of melanin that is deposited in a given feather. Biosynthetic mutations alter the type or quality of melanin that is synthesized. Some mutations might affect melanoblast cell migration during development or melanocyte density/distribution and even pigment distribution within melanocytes, which are the melanin synthesizing skin cells. Other mutations may affect the melanosomes themselves. These are the melanin containing pigment granule bodies which are synthesized by melanocytes and are ultimately deposited into developing feather follicles. Melanosomes can be reduced in size or number, or they may be deformed in shape relative to their normal ovoid counterparts <sup>6</sup>.

**GROUND COLOR**: There are two basic ground colors in finches, white and yellow.

White Ground: In birds such as the Society, Shafttail and Zebra, the removal of all melanin pigment results in a white colored bird. This is because melanins are the only feather pigments present. Eliminate these pigments and you will have white feathers. This seems simple enough. The Ino mutation in a white ground bird is commonly referred to as Creamino.

**Yellow Ground**: The feathers of green backed finches and softbills such as Gouldians and Parrot Finches have both carotenoid and melanin pigments. With the exception of green turacoverdin, a heme based pigment produced exclusively in some Turacos and similar pigments produced in the gallinaceous species Ithaginis and Rollulus as well as in the Jacana, green plumage is typically created by combining yellow carotenoid pigments with melanin-based structural blue <sup>7</sup>.

Therefore, if all melanin is removed from green feathers, these birds will not be white. Instead, they appear yellow due to the carotenoids, which are unaffected by melanin mutations. Alternatively, if carotenoid feather deposition is blocked, blue feathers are the result. In order to create white feathers in a green feathered yellow ground bird, it requires the combination of two mutations, one that removes melanins and another that removes the carotenoids. Some birds, such as Gouldians are a crazy quilt patchwork of variably pigmented regions, some of which may only have melanins (phaeomelanin purple breast feathers or eumelanin black headed face masks), carotenoids (yellow belly feathers) or both pigment types (green back feathers). The Inomutation in a yellow ground bird is commonly referred to as Lutino.

#### INO MUTATION TERMINOLOGY

**Par-Ino**: All the mutations discussed extensively in this article are actually classified as par-inos, shorthand for partial Inos, which means that some level of melanin pigment remains. In addition to being Par-Ino, Creamino and Lutino are also classified as albinistic. These mutations severely decrease melanin biosynthesis and/or alter the manufacture or structure of

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melanosomes. If melanin blockage is complete, Albino is the result. However, if the defect is incomplete or only partial, then the Par-Ino is visualized (Creamino and Lutino). All albinistic birds have severely reduced melanin-based body pigments in addition to little in the way of feather pigments<sup>8</sup>. There are at least two loci involved in avian albinism, discussed below.

**Sex Linked (SL)**: One locus for Ino maps to the X (*Z*) chromosome. The genetic symbol for the Ino mutation is "i" or alternatively "in" <sup>9,10</sup>. In some species, there may be multiple alleles of SL Ino. So far, this is not the case with any of the Ino mutations presented here. Perhaps one caveat occurs in Zebra Finches. Enough similarities exist between the CFW in Zebras and Ino to suggest that perhaps CFW is in fact a SL Ino mutation - although how precisely the markings continue to be expressed while base feather color and even skin pigment is reduced or completely absent remains a bit of a conundrum. SL Inos possess the pigment synthesizing enzyme tyrosinase, the first enzyme in the biosynthetic pathway, but they are apparently blocked in melanin pigment production further downstream. In fact, SL Inos actually produce higher than normal levels of tyrosinase due to quirks associated with biochemical feedback mechanisms <sup>11</sup>.

**Non Sex Linked (NSL)**: When the Ino lesion occurs on one of the autosomes (a chromosome other than the sex chromosomes), it is classified as NSL Ino. In Societies, the Albino mutation is NSL Ino and is the tyrosinase knockout mutation in which melanin biosynthesis is completely disrupted. Because melanins cannot be produced in Albinos since they completely lack the ability to synthesize these pigments, the Albino mutation is epistatic to all other melanin mutations. In other words, a Chocolate Albino has the Albino phenotype. A Chestnut Albino has the Albino phenotype. A Pearl Albino has the Albino phenotype, etc. In Societies, there are two Albinos: European origin autosomal recessive and Japanese origin autosomal incomplete dominant, with the mutationgenetic symbols ae and Aj respectively <sup>9,10</sup>.

**CREAMINO PIGMENTS**: The Creamino mutation appears to result in the almost complete reduction of eumelanin as well as severe reduction in phaeomelanins. However, phaeomelanin (warm reddish brown) pigments are somewhat retained in the Creamino, and these are what give the Creamino its creamy almost pink coloration. Creamino breeders should select birds which have the highest levels of residual phaeomelanins. Such Creaminos are highly desirable, not to mention stunning specimens. Washed out, nearly white Creaminos with hardly any phaeomelanin and hence hardly any creamy coloring aremuch less preferred. Unfortunately, this is the current status quo with many American Creaminos.

#### SOCIETY FINCH BACKGROUND COLORS:

**Chocolate, Chestnut and Fawn**: Since the Café au Lait coloring is an integral Creamino characteristic, it is generally preferred to breed Creaminos in the darkest possible background color. Due to their high levels of feather pigments, the Chocolate background has been the gold standard for breeding

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Creaminos. In general, the Chestnut and Fawn backgrounds are not nearly as preferred for Creamino, the reason being that these two mutations have already suffered a decrease in pigments. Creamino feather darkness is believed to be related to the background in which they are bred with Chocolate Creamino > Chestnut Creamino > Fawn Creamino, relative to overall Creamino pigmentation. I have not personally bred Creamino in a Chestnut or Fawn background, preferring instead to heed what breeders have communicated with me about their Creamino breeding experiences. I keep Creaminos in either the Chocolateor Black Brown backgrounds.

**Black Browns, Mocha Browns & Red Browns**: Commonly known as Euros, these birds are three-way hybrids between the Society Finch, the Black Headed Nun (Lonchura malacca) and the White Headed Nun (Lonchura maja) and in the case of the Red Brown, also possibly the Chestnut Breasted Mannikin (Lonchura castaneothorax). (The term Euro was coined by the late Bob Rittman.) Euros have become all the rage in U.S. Society Finch circles due to recent importations from Europe, many via Canada. The Black Brown background can also be used for breeding Creaminos, however some feel that since the Black Brown has such a high degree of eumelanin, it is not the best background to use for Creaminos. A Creamino's coloring should always be warm, and some feel that using Black Browns, particularly very dark almost ebony ones, make for Creaminos which appear too cool in their color tones.

While I do not keep or breed Mocha Browns and Red Browns and therefore cannot relay any personal experience, there is some evidence that diluted back color isn't as important in breeding Creaminos in the more color intensive Euros. With regard to using Black Browns for breeding Creaminos, I do have one genuine German imported male Black Brown. He is not the best example of a Black Brown, exhibiting too much pigment reduction to be acceptable (in my eyes) for the Black Brown phenotypic designation. I consider this cock bird to be 'Euro Influenced' since with his intermediate phenotype, he's obviously not a Chocolate nor is he a top quality Black Brown. He is, however, noticeably darker than many of my Chocolate Society finches as well as being bigger, bolder, more vertical and he has much more impressive belly scales. I decided to use this cockbird to increase the size and improve the stance and belly scaling in my Creaminos. I set him up with a Creamino/Gray hen progeny of Lehigh's, and I had the additional pleasure to discover that my 'Euro Influenced' cockbird is also split for Creamino and Gray. In their very first clutch, they gave me a Grayino male. Yet another Creamino casino payout! Grayino is the combination of Gray and Creamino (see 'Grayino' section below). Recently, this same pair gave me a male Creamino chick. As soon as he feathered out, this Creamino chick had decidedly darker pigment on his back (for a fledgling) than any of the Creaminos I have bred to date. He is also noticeably warm toned. After his first molt, belly scales are becoming more apparent on his breast. Due to these very limited breeding results, I remain unconvinced that Black Browns are not a satisfactory background color for breeding the Creamino mutation. Furthermore, if you desire bolder Creaminos with more prominent belly scales, the Black Brown background is probably the way to go. Assuming you can find Black Browns, that is.

Society	Eye	Plumage	Mandible Color		Noticeable	Noticeable
Mutations	Color	Color	Upper	Lower	Breast Bib	
						Scaling/Fleckin g
Chestnut Dilute	Black/Brown	Light to medium chestnut brown	Medium to dark brown	Silver	Yes	Yes
Clearwing Fawn	Brown/Plum	Fawn head, vent, tail. White wings, belly, and back	Light to medium brown	Silver	Yes	Ideally No, in top specimens there shouldn't be any
Dilute Fawn	Brown/Plum	Light fawn	Light brown	Silver	Yes	Yes
Creamino	Red	Pinkish dark cream	Pinkish or colorless	Pinkish or colorless	Yes	Ideally Yes, in the best specimens
Grayino	Red	Grayish pink cream	Pinkish or colorless	Pinkish or colorless	Yes	Ideally Yes, in the best specimens
Ultra Dilute Fawn	Brown/Plum	Extremely light cream blush	Whitish with silver undertones	Whitish with silver undertones	No	No
Pied	Black/Brown	White	Pinkish or colorless	Pinkish or colorless	No	No
Pied	Red	White	Pinkish or colorless	Pinkish or colorless	No	No
Albino	Red	White	Pinkish or colorless	Pinkish or colorless	No	No

SIMILAR PHENOTYPES: Table 1 lists various Society Finch mutations or phenotypes that might be confused with the Creamino. While this may be an oversimplification, it serves as a good rule of thumb. The Fawn Dilute, the Clearwing Fawn Dilute, the Chestnut Dilute (AKA Silver) and the Ultra Dilute may all be accidentally mistaken for Creamino by the inexperienced keeper. Perhaps the guintessential identifying Creamino feature is their red eyes, though there are differences in feather, skin and beak color as well. Of the abovementioned lightly colored Societies, only the Creamino will have reddishpink eyes. All other color mutations have black, brown or 'plum' colored eyes, except Albino and red-eyed Pied. Being pure white, the Albino and red-eyed Pied have no feather color whatsoever, making them relatively easy to differentiate from just about any decently colored Creamino. A poorly colored Creamino or one in the Fawn background may look extremely similar to an Albino or red-eyed Pied. Only very close examination in bright light (for any feather pigment) or test breeding to a Chocolate with a known genotype will reveal the true genetic nature of a poorly colored Creamino. Neither Albino nor Pied is sex-linked recessive.

The Zebra Finch Continental Chestnut Flanked White (C CFW) mutation is similar in some respects to the Creamino. The C CFW Zebra also has no pigment uponhatching. Once their eyes open, they are pinkish-red like those of a Creamino. As chicks mature, creamy colored back feathers emerge. However, that is the end of the similarity. Unlike the Creamino Society, eumelanin (black) pigments remain expressed in C CFW Zebra markings such as tear marks and breast/tail bars. Furthermore, as the C CFW ages, its eyes gradually become darker, although they never really lose their pinkish-red cast. The CFW-Fawn Zebra Finch might initially be erroneously confused as being a Creamino Zebra by some since it has a fawn washed back with brown markings, though their eyes are plum not bright pink-red. A Continental CFW-Fawn would have redder eyes than a CFW-Fawn, however neither is a Creamino. Currently, there is no known Zebra Finch Creamino mutation (see

the 'Zebras & Phinos' discussion below), although the CFW multiple allelic series does present itself as an interesting potential candidate.

**CREAMINO GENETICS**: Creamino is sex-linked recessive in both Society Finches and Shafttails. This means that a female is NEVER split for Creamino since hens have only one Z (X) sex chromosome. She either has the mutation and you can see it, or she doesn't. Like all sex-linked mutations, a Creamino hen inherits her Creamino coloring from her father, not her mother. Males can be split for Creamino. A visual Creamino male must inherit one Creamino Z (X) chromosome from each parent. In other words, the father must be at least split for Creamino and the mother must be a Creamino in order to breed male Creamino offspring. To my knowledge, there is no way to visually assess which male birds might be Creamino split. The only way to know for sure is simply to breed them.

Male x Female	Genotype of Male Progeny			Genotype of Female Progeny	
Pairing	Chocolate <sup>‡</sup>	Chocolate <sup>‡</sup> /Creamino <sup>§</sup>	Creamino <sup>§</sup>	Chocolate <sup>‡</sup>	Creamino <sup>§</sup>
Creamino x Chocolate		Yes	-		Yes
Chocolate x Creamino*		Yes		Yes	
Chocolate/Creamino x Creamino		Yes	Yes	Yes	Yes
Chocolate/Creamino x Chocolate	Yes	Yes		Yes	Yes
Creamino x Creamino			Yes		Yes
* Creamino progeny will NOT be produced t	from this mating.				

**CREAMINO PAIRINGS**: When breeding Creaminos, its best that one parent should be Chocolate (or interchangeably Black Brown). *Table 2* presents pairings which will produce Creamino (or split) progeny:

While Creamino x Creamino matings do produce the most Creamino chicks (all progeny will be Creamino) in the shortest period of time, this pairing does not allow the breeder to select one mate which will have a rich dark Chocolate phenotype. If you are breeding for quality and/or the show bench, Creamino x Creamino pairings are not recommended. To reiterate, the prized Creamino is one with the lowest possible levels of eumelanin (approaching zero) yet retains deep warm pinkish phaeomelanin hues.

**CREAMINO COMBINATIONS**: Creamino severely affects and reduces all melanin feather pigments and therefore doesn't really combine very well with most other color mutations. Please see the 'Background Colors' discussion above for an explanation of why this may be the case.

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**Grayino**: Gray is the one color mutation which works very well combined with Creamino. Although the exact mechanism is unclear, Gray modifies or further dilutes/eliminates/converts phaeomaelanin, the dominant pigment still retained in Creamino feathers. Creamino plus Gray yields the Grayino - perhaps one of the rarest and most coveted Society colors of all. Grayinos appear to be an even more dilute form of Creaminos. As such, fledglings are quite light almost white in color with only a hint of color on their back between their wings. Gray coloring will become more apparent after their first molt. Gray is autosomal recessive, so both parents must be at least split for Gray in order to produce Gray progeny, in addition to being Creamino. All Gray x Creamino pairings will NOT give Grayino offspring. There are numerous crosses where Grayino cannot be bred or the possibility of breeding a Grayino is slim indeed. Even with a Grayino hen, you will never produce any F1 Grayino chicks if the male isn't at least split for both Gray and Creamino. Choosing breeding pairs wisely increases the probability of producing Grayino progeny.

Pearlino and Sex-Linked Mutations: Another theoretical combination is the Pearl Creamino or the Pearlino as I like to call it. Whether this combination can actually be made remains unknown. The Pearl mutation is also sex-linked recessive. This means that Pearl occurs on the same Z (X) sex chromosome as the Creamino mutation, however Pearl is not allelic to the Creamino mutation. In order to create a Pearlino, a genetic recombination event known as a crossover must happen so that both mutations occur on one chromosome. For those familiar with the CFW-Fawn or Lightback-Fawn Zebra mutations, creating a Pearlino requires a similar crossover event. Please note that sexlinked genetic recombination can only take place during meiosis in male birds, since only males have two matching homologous Z (X) chromosomes. There is no genetic recombination between the Z (X) & W (Y) chromosomes in hens. The distance between the Pearl and the Creamino physical locations (loci) on the sex chromosome will determine how frequently a crossover event can actually occur. If the Pearl and the Creamino mutations are located close relative to one another, then the probability of crossing over is quite low and continues to decrease the closer in physical proximity the two genes are to one another. Conversely, if the Pearl and Creamino loci are far apart from one another on the sex chromosome, the likelihood of recombination will increase considerably. Finally, if the two mutations exist on opposite ends of the sex chromosome, they may even appear to sort independently without any linkage. So far as I'm aware, there is no genetic map of the Society Finch Z (X) chromosome, and therefore right now we do not know how far apart these two genetic loci are from one another.

Lacewing Analogy: It is still unclear if the Pearlino phenotype will actually be discernable. Pearl results from changes to eumelanin pigments, while Creamino significantly reduces the amount of eumelanin pigment present while the phaeomelanin pigments remain relatively unscathed. Hence, it is logical to assume that a Pearlino would look essentially identical to a Creamino, and therefore one wouldn't know they actually had a double mutation Pearlino in hand. However, there is a remote possibility that the Pearlino may have a different, distinct and recognizable phenotype. In Budgerigars,

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both the Ino and Cinnamon mutations are also sex-linked recessive. The recombination of these two mutations on to one chromosome results in the red-eyed Lacewing phenotype (AKA the Cinnamon-Ino) which is readily recognizable and distinct from both Lutino and Cinnamon <sup>12,13</sup>. This phenomenon is known as gene interaction, and while the Lutino suppresses some color mutations in the Budgie, it's important to note that other dilutions and albinistic mutations are 'hidden' by Ino but not necessarily suppressed <sup>14</sup>. Being a yellow ground bird, the Lutino Budgerigar is clear buttercup yellow with red eyes. However, when Lutino is recombined with the Cinnamon mutation (resulting in the Lacewing phenotype), the cheek, head, neck, wings and tail markings reappear as a cinnamon brown. Furthermore, Lacewing cheek patches are pale violet and throat spots are light cinnamon in color. All other aspects of the Lacewing are identical to the Lutino including red eyes <sup>15,16</sup>.

It's dubious that Pearl is the Society genetic equivalent of the Budgerigar Cinnamon locus. However, it remains possible that the Pearlino may actually be a new and interesting Society Finch recombination mutation depending upon the action of the Pearl mutation. A further consideration is whether Pearl is strictly a pigment mutation or whether it might not also have structural properties. This is currently unknown. I have several pairs of Chocolate/Creamino Pearl males set up with Creamino hens. So far, there haven't been any uniquely colored female offspring. I will continue to watch their progeny closely for the next couple of generations.

**CREAMINO MATURATION**: Assuming all goes well, fresh out of the nest Creamino fledglings tend to have very little to nearly no feather coloration. An inexperienced breeder might confuse them with Albinos or Ultra Dilute Fawns. (Please see the 'Similar Phenotypes' discussion above). After their first molt at about 3 months, Creamino coloring will bloom. They will grow in many more Café au Lait back, head, breast and rump feathers. Their belly scaling should blossom, assuming your line of Creaminos has belly scaling. Achieving dark belly scaling (so that you can actually see it) on a Creamino is a major breeding challenge. I have noticed that Creaminos do not reach their full depth of color until after they've completed at least two molts. Not all feathers are replaced in the first juvenile to adult molt. It takes that second molt for their magnificent Creamino coloring to develop completely. Furthermore, as with the C CFW Zebra, Creamino feather color intensifies and seems to darken with age. Like all the good things in life, it's well worth the wait.

**CREAMINO SELECTION**: Despite that fact that Creaminos don't achieve full coloring until they mature some, you can still select your birds after their first molt. My experience so far shows me that whichever Creamino birds are darkest in coloring after their first adult molt will also be the darkest (relative to another lighter bird) after their second and subsequent molts. Therefore, it is not necessary to wait until your Creaminos are over one year of age to decide which to keep and which to sell, based upon depth of coloring. Usually by four months, selections can be made. In addition to depth of color, other factors to be considered during selection include: perching stance, body type, feather length (buffness), mismarked white or pied feathering (which can be difficult to

see on a poorly colored Creamino), quality of belly scaling, head & tail shape, crossed or droopy wings, head size, back line, belly line, beak size, beak or foot deformities as well as overall size, length and weight. Some of these characteristics may change as a bird matures further. As with any color or birds in general, sickly birds should not be continued in your breeding program and should be relocated so that they don't expose your breeding population to potentially communicable and debilitating diseases.

**CREAMINO HEALTH ISSUES:** Because Creaminos are missing most of their normal body and eye pigments (oculocutaneous albinism), I've had some concerns regarding eye disease. To date, I have not noticed any issues with poor vision or excessive light sensitivity in my Creamino Finches. Creaminos are photosensitive and as such are not very fond of extremely bright light. I do have one Creamino which developed cataracts in one eye at an incredibly early age. (Please see the 'Creamino Hybrids' section below for more information.) In humans, ocular albinism is responsible for a host of eye diseases including: light sensitivity resulting from iris color defects, refractive errors such as astigmatism and near or far sightedness, abnormal crossing of optic nerve fibers resulting in crossed eyes and monocular vision, nystagmus (involuntary eye movements), underdeveloped fovea (the fovea is a spot on the retina responsible for visual acuity) and other vision problems <sup>17,18</sup>. It's guite likely that Creaminos may exhibit some or even all of these visual difficulties, though it is not currently known if that is the case. Monocular vision is not necessarily a problem for some birds since unlike humans, many birds already use monocular vision to a great extent (seeing something different out of each eye) <sup>19</sup>. Having said all that, it is possible that Creaminos retain enough residual eye pigment to avoid most of the above stated problems as noted in human ocular albinism. Aside from speculating about potential vision defects, Creaminos seem otherwise perfectly healthy.

**HUSBANDRY ISSUES**: The Creamino, Lutino, Albino and in the Zebra Finches the C CFW mutations all result in the complete or near complete reduction of not only feather pigments, but body pigments as well. This is most obvious in nestlings which are completely devoid of pigment. Their eyes, skin and beaks are pink or colorless.

**Mouth Markings**: Critical feeding cues for the parents of altricial chicks, the absence of mouth markings can be problematic. Each Estrildid species has unique mouth markings which are a series of dots, horseshoes and other shapes decorating the inside upper bill. Tongues may also be marked. Additionally, the skin in the gape flange region may be white or pigmented to further draw attention to the mouth. Some chicks even have pearlescent gape nodules as in the Gouldian Finch. Combined, these mouth markings help parents to recognize and attend to their young by properly placing food in their baby's mouth.

**Consequences of Inadequate Mouth Markings**: The lack of normally pigmented mouth markings in heavily diluted mutations can cause some vexing breeding issues for keepers and finches alike. Parents can have trouble feeding their Creamino chick as a result of 'missing' mouth markings. The chick may receive too little nutrition and become weak or stunted. If the problem isn't caught in time, the parents can become frustrated with the weak Creamino chick because it doesn't beg properly. They may proceed to peck it on the top of its head and around its beak in a misguided attempt to stimulate the proper begging response. Needless to say, it doesn't take many well placed pecks by an adult bird to cause some serious, permanent and potentially deadly damage to a young chick. Furthermore, this can lead to the parents nibbling off their chick's wing tips and toes as they reject their own Creamino offspring. Meanwhile, the chick is already begging, with beak wide open - it can do no more. Alas, the parents don't recognize the cues because they cannot see them, and confusion or even starvation results. Finally, it should be noted that just because one of the parents is a Creamino, there is no guarantee that the pair will adequately attend to their Creamino progeny.

**Remedies**: Fortunately, there are a few ways to help ensure that more Creamino hatchlings grow and fledge. They are presented here in order from the least to most labor intensive.

Get more light into the nest box. Open the nest box up some by propping or even removing the lid and/or placing a light opposite to the nest box. This is done so that the parents can actually see their chicks better. Recently, I have switched to nesting cartons for most of my finch breeding. When I have Creaminos in the nest, I sometimes cut the tops right off of the cartons so that much more light enters the nest box. Increasing nesting enclosure light levels alone may also help.

<u>Clutch Segregation</u>. If possible and assuming you have ready fosters or another cycle synchronized breeding pair, remove the Creamino chicks and place them in one clutch while segregating all the pigmented chicks into the second clutch. This prevents parents from favorably feeding the pigmented chicks while ignoring the colorless Creaminos. In order to keep lineages straight, breeders can detassle the head fuzz (if possible - this works well with C CFW Zebras) or mark one clutch of chicks with an indelible or UV marker until they are old enough to band. While this 'Chick Swap' technique can work, it cannot always be utilized due to the lack of appropriate fosters or concurrently breeding pairs. Furthermore, it is still possible that the pair chosen to feed the Creaminos will not do such a great job after all, despite eliminating the competing attentions of normally pigmented chicks.

<u>Creamino Friendly Fosters</u>. Have experienced fosters on hand which have fed Creaminos in the past. They know the ropes and may be more apt to accept and feed a colorless Creamino hatchling. Many problems associated with the inadequate parental care of Creamino chicks can be traced to immature and inexperienced parents with poor or no parenting skills, though not always. I recently experienced a particularly annoying case of experienced fosters selecting out and consistently tossing a Creamino chick. After three tosses, one at night after lights went out, I realized I had to find that chick yet another home. Fortunately, the next foster pair graciously fed this Creamino chick. Therefore, if you don't succeed wth the first foster placement, try another pair. I've swapped out chicks as many times as it takes in order to find doting parents for them or until I run through all my fosters and wind up handfeeding.

Sharpie® Marker Trick. This useful technique has been passed along by those who breed very dilute Society mutations such as Creamino, Albino and in Zebras, Continental CFW. I first learned of using Sharpie® markings from Huub Janssen, a world class Dutch Zebra breeder. Using a black indelible marker, color both bills of the chick's beak so that they are dark like the Normals. These markings must be replaced daily for the first ~10 days or so until the chick's eyes are open, and it is begging loudly and vigorously. Once you are sure the parents are reliably feeding the chick, then you can usually stop with the Sharpie® markings, although it's a good idea to keep a close eye on the clutch. I perform twice daily nest checks on Creamino clutches regardless of how well the parents appear to be attending to the Creaminos. In some cases where the parents seem intractable, I have drawn black markings on the top of their Creamino chick's head and even given black dots for 'eyes' (until the eyes open). If you look at the pigmentation pattern on a Normal chick, you can clearly see that it has a dark patch of pigment on the top of its head as well as down the center of its back. The developing eye orbitals are also quite dark with pigment. Drawing these pseudo markings on the colorless chick serve as further landmarks and mimic normal pigmentation patterns. I've also noticed that putting Sharpie® markings on the crown of a chick's head seems to curb pecking behavior in parents who have already started with this annoying and potentially disfiguring or even lethal behavior.

Handfeeding. Sometimes, all the above techniques can fail miserably. The choice becomes one of either handfeeding or allowing your Creamino chicks to die. Most pairs will eventually catch on to feeding their Creamino babies, but sometimes it can takes several failed clutches before they finally realize what those pink squiggly wigglies are and actually feed them properly. Some pairs feed all their chicks including Creaminos in one clutch but on the recycle, fail to feed the Creaminos. Other pairs get it right without any help from me on their very first breeding attempt - which is always gratifying. While I realize many are averse to fostering and some even more so to handfeeding, I personally cannot let a chick die due to poor parenting skills. There is little I hate more than tossing a dead chick into the garbage for the want of a little extra work on my part. I take two different approaches to handfeeding.

<u>Supplemental Handfeeding</u>: I use this technique a lot for chicks who are lacking in pigment. I feed the Creamino chicks first thing in the morning so that they get a kickstart on the day. After the Creaminos are handfed, I then distribute eggfood, lastly giving eggfood to the flights with the chicks I earlier handfed. This gives the Creamino chicks time to digest some of the formula and muster enough energy to adequately compete with their normally colored sibs for parental attention. I also find that this little morning jump start can make the difference between healthy Creaminos versus stunted or sickly ones. Before lights out, I will perform another nest check. If a Creamino chick's crop is empty or low, I will again top it off with formula. I use supplemental handfeeding when the parents are in fact feeding their Creamino chicks, but they just are not feeding them quite enough, and then the Creaminos are falling behind developmentally or are otherwise having a hard time competing with their normally colored sibs. Hatch order alone can spell doom for a Creamino. If the last chick to hatch is a Creamino, it's almost guaranteed that it will fall behind its sibs very quickly. Its sibs are pigmented, and they are also already bigger, stronger & more competitive. Supplemental handfeeding can be a bit like walking a tightrope. Too few feedings and the chicks continue to lag behind or even become ill or die. Too many feedings and the fosters/parents may stop feeding the chicks altogether, leaving you with the lion's share of the work. I aim for 1-3 supplemental feedings per day. More than three feedings and you are no longer supplementing, you are providing sufficient calories for all of their dietary needs.

<u>Full Scale Handfeeding</u>: A finch chick can survive on as little as four formula feedings per day, so long as it's being brooded by its parents/fosters and is not in a desiccating situation. Six feedings per day ensures that the chick will grow. In my bird room, I consider any feedings more than six per day to be icing on the cake. Chicks less than five days of age have very small crops. Therefore, they really need to be fed pretty much as often as you have time for - feeding them hourly is about right. As the chicks age and their crops expand, feeding frequency can be reduced some. I am fortunate that I have several trios of male Society fosters who are extremely tolerant of my intrusions. Some even like to eat handfeeding formula from the syringe tip. Therefore, I use these trios to brood chicks that I'm handfeeding. Sometimes, and usually once the chicks are a bit older and begging loudly, these fostering trios will kick in and feed the Creamino chicks. This is always a relief, and then my work is done. But not always. Unfortunately, fosters can also be fick-le, and this is even more true in the case of albinistic chicks.

<u>Fake Eggs</u>: A little trick I've discovered that sometimes stimulates unconditioned nonfeeding fosters to accept and actually FEED waifs is to always place fake plastic eggs (or marbles) in the nest along with the Creamino chicks. It might take a few days for the fosters' feeding instincts to actually kick in, but the fake eggs seem to speed this process along some. Most fosters will brood eggs preferentially over chicks, so at the very least, the fosters will be brooding the chicks along with the fake eggs. Hopefully, the fosters will ultimately be stimulated to feed the chicks as well. I also feel that the 'eggs' help to protect young nestlings from being accidentally trampled by clumsy fosters who might not initially be quite in the nurturing mood when chicks are first transferred. Of course, fake eggs are often used to condition the fosters. In a perfect world, fosters should be on fake eggs for at least one week prior to chick transfer. However, when caught short, adding the eggs along with the chicks may help to encourage them to accept foster chicks sooner.

**HANDFEEDING TECHNIQUE**: While this is not the place to discuss hand-feeding in detail, I did want to say a few things about how I hand feed chicks. I prefer Lafaber's NutriStart® because it's a fine powder. It can be used to crop feed chicks which are not begging, in addition to crop feeding sick or

starving adults. I use a flat toothpick for actively begging chicks which are less than five days old. Some breeders use a small paint brush or the aluminum split band applicator tool for plastic bands rather than a toothpick. All seem to work equally well. At about five days of age, I switch to a 3 ml plastic syringe for the duration. When feeding a large group of chicks, it is tempting to scale up in size to a 5 ml, 10 ml or an even larger syringe. The problem with larger syringes is they dispense too much formula when barely even depressing the plunger. It's so easy to accidentally aspirate chicks using large syringes. While they may work fine for handfeeding psittacines, I don't recommend large syringes for smaller birds like finches.

I mix small batches of formula in ceramic mugs and then microwave it in 10 second increments until the formula is heated. I always allow the formula to stand for a few moments prior to feeding in order to ensure it's properly hydrated. If not, more water is added until the proper consistency is achieved. Handfeeding formula should have the texture and consistency of pudding. Always be sure to feed only hot but not scalding formula. I test the temperature on my wrist using the ageless technique parents use for heating milk. If it feels burning hot on your wrist, then it may scald the chicks. If it doesn't feel warm, a yeast infection could be right around the corner. Also, to avoid yeast infections, do not feed chicks until their crop has emptied. Never over-feed chicks! This can lead to aspiration which can result in lung infection or other respiratory problems in the long run or more dramatically, immediate death due to suffocation. You can usually tell when a chick has aspirated a bit of formula because it develops a clicking sound while breathing. This will usually resolve itself. It's better to feed less and be safe than to feed too much and be sorry. I don't typically have reflux/aspiration problems with handfeeding Societies, Zebras or Blue Caps, however Goulds and Melbas can be problematic in this regard. I always thoroughly wash my hands before handling chicks. Handfeeding syringes also need to be hygienically maintained.

#### **OTHER CREAMINOS - HYBRID ORIGINS**

**Parson's Finch**: Some Parson's Finch (Peophila cincta) color mutations are the result of Shafttail mutation x Parson's matings followed by multiple backcrosses to Parson's in order to shorten the tail and remove red carotenoids from the beak as is appropriate for a Parson's Finch. If the Parson's Creamino isn't currently available somewhere, I'm sure it will be shortly.

**Lonchura**: Because Society Finches hybridize readily with other members of the Lonchura genus and can produce fertile F1 male progeny, the possibility exists to create the Creamino in a plethora of Lonchura species.

**African Silverbills**: Again, via hybridization and backcrossing, the Creamino is available overseas in the African Silverbill (Lonchura cantans). I'm unaware that the Creamino African Silverbill is available in the US, but it's possible. African Silverbills are a CITES Appendix III species. So despite the fact that African Silverbill mutations are obviously captively bred, importation of this color mutation is an issue.

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White Headed Nun: To date, I've only seen photographs of these Lonchura Creamino hybrids created by Japanese breeders. <sup>20,21</sup> The hybrid male (bred by mating a Society Creamino x White Headed Nun - in other words split Creamino) was crossed to a White Headed Nun hen to create female Creamino hybrids. The photos I saw online were simply STUNNING and despite the fact that I'm not a big fan of creating hybrids or mules (infertile hybrids), I must confess that I immediately fell in love with their appearance. Imagine a White Headed nun which still has a white head but instead of brown fading to black colored body feathers, she has a brassy overall coloration yet retains her red tail. Toss in a pair of radiating red eyes to make this bird simply breathtaking! While it's true that the Creamino doesn't have as much contrast as the Wild Type White Headed Nun, nonetheless the Creamino coloring is pleasing and rather fascinating.

**Bengalese x Shafttail**: This past spring, I had the misfortune to breed Pearl Society x Creamino Shafttail hybrids. My unpaired male Creamino Shaftie plied his affections on a receptive Pearl Bengie. Five eggs were laid, all were fertile and the Pearl hen and her Pearl Bonten cuckolded mate settled down to incubate. Four hybrid chicks hatched as a result of this strange intergeneric love affair. While the Society parents fed the Normals well enough, I handfed the Creamino chicks because the parents were not taking adequate care of them. The Creamino girls were falling behind developmentally.

You would think I'd have picked up on the fact I was handfeeding two hybrid chicks a half dozen times a day. But I didn't. Due to the similarities in mouth markings between these two species and the complete lack of body markings in the hen Creaminos, it was not until the day before the Normal male chicks fledged that I realized what had actually happened. The chicks begged like Societies including the head vibration, and I had erroneously thought the brown male chicks were just very poorly colored Pearls. Then literally overnight, black bibs appeared under their hybrid chins while tail feathers sprouted which were far too black for any Society Finch I know. My heart sank when I realized what had happened.

The Creamino hens fledged a full week after their parent-reared Normal colored brothers, but thankfully the girls weaned pretty quickly. The youngest and smallest of the clutch was a Creamino hen I've named TLC (a double entendre name which was short for 'The Littlest Creamino' and also because she needed some extra tender loving care). Sadly, she started to develop clouding cataracts in her left eye almost immediately after fledging. This defect definitely reduces her vision from the left. Her right eye is clear as of writing, and I continue to hope it will remain healthy for her.

I have inquired whether cataracts or other eye anomalies are a common problem with Creaminos, but haven't been able to substantiate this to date. In fact, all of those who have asked about this issue said they've had no problems with cataracts in their Creaminos. Cataracts do occur in other bird colors and species, so I'm unsure if her eye condition is the result of her being a hybrid, a Creamino or possibly both. The most likely scenario is that the cataracts are bristine ACY Kumar

Shafttails: Normal hen (L) and Creamino male (R). This pair produces Normal split Creamino males and Creamino hens.

due to intergeneric hybridization, and any eye abnormalities have been exacerbated by other gene/protein products which are not functioning properly in her mixed-up hybrid background. Abnormal epistaticgene interactions are not uncommon in hybrids. TLC also has some nystagmus, which in birds seems to be manifested with their entire head moving back and forth somewhat akin to the carriage of an old-fashioned typewriter rather than just rapid uncontrolled eye movements like what is seen in humans. So far,

her sister's eyes remain clear, normal and healthy. All four hybrids are banded

as such courtesy of the gift of HYBRID labeled bands from Roy Beckham. I have no future plans of breeding any of these hybrids at this time. It's dubious that they'd be fertile anyway, although I'm considering them as potential fosters. Might as well put them to work!

#### LUTINOS

**LUTINO GOULDIANS**: (Erythrura gouldiae) were first described as early as 1965, though they never seemed to gain in popularity like the other Gouldian mutations such as blue or yellow bodied <sup>22</sup>. There are at least two populations of Lutino Gouldians, one in



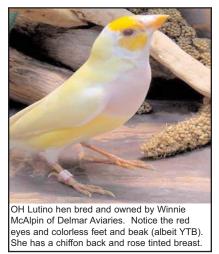
The male on the left has not had his 2nd molt. Notice the lighter coloration. He comes from a chocolate society line. The cockbird on the right is more mature (~1 year of age), has more Grayino depth of color and a more vertical stance. He's a larger bird and was handfed.



Euro Influenced Bengies: Chocolate male (L) sings to his Creamino brother (R). Notice the upright stance of this line of birds. I'm relatively pleased with this Creamino. He has decent depth of color and while it's hard to tell in this photo, he is starting to show some belly scaling. Notice how the Creamino's beak is flesh colored.



Creamino chicks (pink or colorless) compared to normal Chocolates. The Chocolates were fed by their parents while the Creaminos were handfed. Notice the bad luck of hatching order and how much smaller the youngest Creaminos are relative to the others. They will catch up however and should reach normal final body weight.



the USA and another in Europe. There is also a population of red-eyed Goulds in Japan. While I've not seen any of these birds personally, photographs available online reveal potentially different phenotypes between the various Gouldian Lutino mutations.

European Lutino: <sup>23</sup> This sex-linked recessive mutation results in clear deeply colored yellow backed and bellied males. Hens are more pastel and reduced in their colorintensity. Tail and wing primaries are approaching white. Their eyes are red. On the black headed (BH) Lutino Gouldian male, the head is not white but rather gray, similar in

fact to the yellow bodied (YB) Gouldian mutation. The male also has a sky blue pencil line around his face mask which is indicative of eumelanin being present and typical for a single factored yellow back (SF YB). There is some confusion about whether this particular male is also white breasted and/or yellow bodied. Regardless, persistent head pigments suggest that these Lutinos are still making some degree of eumelanin (black) pigment. Keep in mind that Gouldian back, belly and (in the case of red and orange heads) face mask feathers all contain carotenoids. Therefore, any single Gouldian Ino mutation which only affects melanin pigments could never result in a white or off white bird but rather a yellow one (please see 'Ground Color' discussion above). In order to achieve an Albino, the Lutino mutation would need to be combined with the blue bodied mutation (which prevents carotenoid deposition in feathers).

American Lutino: 24,25 When I first saw photos of American bred Lutinos, I

had to temper my excitement. I must say that the American Lutinos are simply some of the prettiest birds I've ever seen. I think it's the combination of their color coordinated ensemble, pink eyes and breasts along with lemon chiffon and pure white feathers that really attracts my eye. The BH mutation in the YB male is seldom clean. In fact, some people rather confusingly refer to BH YB goulds as Slate Headed. While I don't like this terminology, it does point out that many don't have clean white heads. The American Lutinos don't appear to have residual head melanins like the European Lutino or BH YB birds.



Lutino Blue Faced Parrot Finch hen bred by Billy Wasserman and owned by John Gikas. There is no blue or green at all on this bird due to defective melanin biosynthesis. Instead normally blue areas appear as white and normally green areas appear as yellow. Red (carotenoid) pigments on the rump and tail area are unaffected by the Lutino mutation.

Also sex-linked recessive, these Lutino Goulds are very similar in appearance to the European variety. It's quite possible they are alleles of one another, or they may even be the identical mutation. However, there are at least two differences which one can observe between the European and American Lutino phenotype.

1) The head is white, not gray. There doesn't appear to be any residual face mask or body eumelanin pigments.

2) The breast color is pink blushed.

Aside from the red or yellow tipped beak, these birds haven't any color in their beaks, making them appear colorless and very similar to the beak color found in Creamino or Albino Society finches. Unfortunately to date, only hen Lutinos have been bred. I remain very curious about what males will look like (particlarly head and breast color), and until some are produced, it's hard to properly compare the European vs. American Lutinos. Winnie McAlpin and the breeders of the American Lutino are currently working on producing an Albino Gouldian. Please see the July/August 2004 issue of the Journal of the National Finch & Softbill Society for more information on this mutation <sup>26</sup>.

Japanese Red Eyed: <sup>27</sup> Like the two other Gouldian Lutino mutations, the Japanese version is also sex-linked recessive. These birds have red eyes however, and that is probably where the similarities stop. In order to produce Ino appearing birds, this mutation must be combined with others - principally the blue and yellow mutations. Presently, there is very little information available about the Japanese Lutino mutation. Some suspect this mutation is more likely Fallow than Lutino. The Fallow mutation also results in red eyes, however melanin pigments are converted from black to brown due to incomplete oxidation <sup>8</sup>. Fallow Gouldians should have red eyes and brownish or olive colored feathers.

LUTINO BLUE FACED PARROT FINCH: another sex-linked recessive mutation, the Lutino Blue Face Parrot Finch (Erythrura trichroa) appears very similar in phenotype to the Lutino Gouldian since the BFPF is also a yellow ground bird. In fact, via molecular genetic analysis, the Blue Faced Parrot Finch (BFPF) appears to be the Gouldian's closest relative as determined to date <sup>28</sup>. The Lutino BFPF has red eyes and a colorless beak. Their white head and wing primaries are perfectly offset by their lemon yellow back, belly and vent. The rump and tail is red fading into white towards the tail tip. Yellow and red feathers are much more intense in the male than the hen, with the male back color being an exquisite golden yellow. Lutino is currently the only bona fide BFPF mutation. All other feather morphs have unknown genetics and are still considered to be modifications or not genetically stable and heritable mutations. Via hybridization and multiple backcrossing, the Lutino mutation may some day be available in the Red Throated Parrot Finch (Erythrura psittacea) as well. It is possible to make other Erythrura interspecific hybrids as well. This appears to be a common problem in Europe and this practice should not be encouraged. While more readily available than the Gouldian Lutino muta-

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tion, the Lutino BFPF is not at all common. Experienced breeders may not let their known split or Lutino birds go to beginning aviculturists who are unfamiliar with BFPF housing and breeding requirements. In general, most Parrot Finches require larger accommodations. Small cages lead to fat birds, and obese birds typically do not breed well. Lutino BFPFs can suffer the same husbandry problems as encountered with Creaminos due to their lack of mouth markings (see 'Husbandry Issues' discussed above). Fostering Lutino chicks may be necessary.

#### NON SEX LINKED ZEBRAS

& PHINOS: <sup>29</sup> This is the only non sex-linked Ino mutation presented in this article which makes it particularly interesting. Once upon a time in a land far away across the water, there was a Zebra mutation known as the Phino (phaeomelanin ino). It occurred in the UK and Holland in the late 1980s and into the 1990s. Surprisingly, the Phino mutation was developed out of a Eumo line. Eumos, which are exceedingly rare in the U.S., overexpress eumelanin resulting in as near a black Zebra as is currently possible. So it's rather interesting that the Phino would have popped up in this particular mutational line. Phino chicks had an overall orange cast to their feathers. Upon their adult molt, Phinos developed white body feathers with all the typical adult phaeomelanin Zebra markings (albeit perhaps slightly diluted) such as cheek patches and flanking. Tails were completely white and without any barring, and there was some degree of orange lacing in the wing and back feathers. Since the Phino mutation somehow blocked eumelanins, Phinos had no black markings. While the Florida Fancy, Isabel and Red Flanked Zebras all have a very similar phenotype, only the Phino had red eyes. Like the Creamino Shafttail, the Phino also retained its coral red beak. Unlike all the Ino mutations discussed previously, the Phino was autosomal recessive. So far as I am aware, there are currently no other documented Ino mutations in Zebras, though again the CFW multiple allelic series is a fascinating conundrum.

When I first heard of Phinos, I became ebullient. My excitement was very short lived however. Regrettably, the Phino existed essentially before the advent of the internet for most users. For those newer to the finch hobby, it is hard to imagine what a struggle bird husbandry was prior to the days of internet-based chat groups and email. With today's nearly instantaneous worldwide communication, perhaps the Phino might have been saved, but that was not its fate. It seems the mutation succumbed to the usual problems due to the lack of mouth markings. There is also some evidence that the Phinos were not quite as healthy as normals, and their molt was particularly difficult many did not survive it. There may have also been issues with male fertility. In Holland, the Phino mutation faded out without any known splits surviving. Calls for husbandry help went unanswered in the UK. Unfortunately, this mutation appears lost. For now... The Phino mutation occurred once, and hopefully it or another Ino mutation will resurface and be secured with the advent of better communication and specialized husbandry techniques shared amongst Zebra fanciers.

**CONCLUDING REMARKS**: I hope that this article has piqued the curiosity of potential Ino/Lutino/Creamino breeders as well as presented husbandry techniques that can be successfully employed to breed quality Inos or any albinistic bird. Presently, there are Societies and Shafttails, but I continue to hope that one day a post will appear on the Zebra Finch Yahoo!® Groups internet bulletin board announcing that the Phino is back in town again! I'd probably consider a second mortgage on my home in order to get my hands on a Phino Zebra Finch. You know, they say the first step is recognizing that you have a problem. The way I see it, the problem is that Creamino or Ino Zebra Finches are not currently available. Perhaps some day soon....

**ACKNOWLEDGEMENTS**: I must acknowledge Garrie Landry's Society Finch Yahoo!® Group <sup>30</sup>. Without this online discussion group exclusively focused like a laser on the Bengalese Finch, I'm not sure that I'd have learned nearly as much about Society Finches as I have over the past 4-5 years. While this article bears my name, it is in fact the collective wisdom and experience of many aviculturist members of that group, and they truly deserve much of the credit. I'm simply the storyteller. In addition, I'd particularly like to thank the following people for helping me in some special regard with the preparation of this article and/or my Creaminos. They are listed here in alphabetical order: Carlo Bakker, Roy Beckham, John Gikas, Huub Jannsen, Kanji Kawabata, Garrie Landry, Daniel Maldonado, Michael Marcotrigiano, Terry Martin, Winnie McAlpin, Richard Renshaw, Jim Warburton, William Wasserman, Hans van deWeerdhof and Daniël Wildemeersch.

\*\*\* **PHOTO ANSWER**: (L-R) Grayino, Creamino, Dilute Fawn and Dilute Chestnut (bred by Wick Goss).

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#### GLOSSARY OF TERMS

<u>Albinistic</u> - Any individual displaying an alteration in melanin metabolism or defective melanosome biogenesis. Inos, Fallows and Cinnamons (aka Fawn in the Zebra but not Fawn in the Society) are some examples of albinistic finches.

<u>Albino</u> - An individual which lacks all eye and skin pigments. Albino is the direct result of a knockout mutation in tyrosinase, the rate limiting and essential enzyme in melanin synthesis. In white ground birds, feathers will be pure white, feet pink and eyes red. In Societies, Albino is an autosomal recessive mutation and is also referred to as nonsex-linked Ino (NSL). In yellow ground birds, a second carotenoid mutation is still required to create an Albino. Examples: Society Albino and Albino Gouldians.

<u>Allele</u> - Alternative form or variant of a gene or locus. A deviation from the wild type. One of different possible genes that can exist at a specific site on a chromosome. In the Example Aa, A = 1 st allele, and a = 2nd allele.

Autosomal - Occuring on or related to any chromosome other than the sex (gender determining) chromosomes.

<u>Backcross</u> - A mating between a heterozygote and a homozygote. Most typically, this is a pairing between a split progeny and another bird which is genetically identical to one parent for the gene or trait in question.

Bengalese Finch - Another name for the Society Finch, affectionately shortened to 'Bengies'.

<u>Black Brown</u> - The darkest Euro Bengalese Finch color. This is the default or wild type color. In American Societies, Chocolate is the Black Brown analog. See "Euro."

<u>CFW</u> (Abreviation for Chestnut Flanked White Zebra Finch) - There are two CFW alleles: R or Regular CFW, and C or Continental CFW. Along with Lightback (LB), all are part of the CFW multiple allelic series. C CFWs are albinistic. Many similarities exist between C CFWs and Inos.

<u>Carotenoids</u> - Colorful red, orange or yellow pigments responsible for bright feather, skin and bill coloration in some bird species. Examples include the red beak and leg color of Shafttails or Zebras, and the red or orange head color in Gouldians.

<u>Creamino</u> - The common name for sex-linked Ino in white ground finches. Creaminos are offwhite with red eyes. Sometimes written as Cream-Ino. <u>Crossover</u> - Common term for a genetic recombination event between two homologous chromosomes. Examples: LB-Fawn, CFW-Fawn and BC-GC in Zebra Finches. See also "Recombination."

<u>Cull</u> - To remove a bird with undesirable traits from a breeding program. A form of negative selection performed by breeders. While many think this means to kill, it does not. I cull my birds and then sell them.

<u>Double Factor (DF)</u> - A term used for co-dominant mutations when both mutant alleles are present in an individual. Example: DF Florida Fancy in Zebra Finches. Also used for dominant mutations though many times, DF is considered lethal. Examples: DF Black Face in Zebras or DF Red Head in Gouldians.

Eumelanin - One of two major classes of melanin pigment. Eumelanin is normally quite dark being black, gray or dark brown in color.

<u>Euro</u> - A term coined by the late Bob Rittman to describe a highly selected form of Bengalese Finches. Euros are known for their intensive colors and are commonly called Black Browns, Mocha Browns and Red Browns. Additional distinguishing features of the Euro include bold belly scaling & solid bib/breast coloration. Euros are the result of a 3-way cross between Black Headed Nuns (Lonchura malacca) x Society Finch (Lonchura striata domesticus) and then crossed again to White Headed Nuns (Lonchura maja). Red Browns may also have been crossed with Chestnut Breasted Mannikins (Lonchura castaneothorax). A debate continues as to whether Euros should be considered man created hybrids, a variant, a strain or a separate subspecies of Lonchura. Euros are NOT a simple genetic trait or single gene mutation. Just because a Euro is crossed with a Society, it does not mean that Euro progeny are produced. See "Euro Influenced. "

<u>Euro Influenced</u> - Progeny which are the result of further backcrossing of a Euro to an American Society Finch. These birds tend to not be as colorful or have as intensive belly scales as Euros which haven't been further backcrossed to non-Euro Society Finches. Euro Influenced birds are intermediate in phenotype, somewhere between a quality Euro and an American Society.

<u>Fallow</u> - A light yellowish brown or yellowish brownish green color. In birds, Fallow is an albinistic mutation with reddish eyes.

F1 - Literally means 'First Filial'. The first generation progeny (offspring) from a cross.

<u>Gene</u> - A heritable trait that occurs within the genetic material (DNA) of an organism. A fundamental and functional unit of heredity.

<u>Genotype</u> - All the genetic material of an individual bird including all recessive genes which cannot be readily observed or measured.

Grayino - A combination mutation of Gray and Ino in Society Finches.

<u>Heterozygote</u> - Commonly called 'split' and often written as dominant mutation/recessive mutation. Example: Normal Gray/Black Cheek Zebra finch. An individual with two different alleles (variants) at a given locus (gene) on homologous (matching) chromosomes. Heterozygosity is typically represented by genetic symbols. Example: Aa, where the capital letter indicates a dominant allele, and the lower case letter indicates a recessive allele. For recessive mutations, heterozygotes possess one dominant allele (in this case A) and will appear normal or wild type for that trait. The recessive allele will be hidden and cannot be seen. Example: Black Headed Gouldians. For co-dominant mutations, the heterozygote will have an intermediate phenotype. Examples: single factored Florida Fancy in Zebra Finches or in single factored purple breasted Yellow Backed male Gouldians. For dominant mutations, the full mutant phenotype can be seen even in the heterozygote. Examples: single factored Crested in Zebra Finches or Society Finches. Heterozygous - See "heterozygote."

<u>Homologous Chromosomes</u> - A pair of matching chromosomes that have the same size, shape and complement of genetic loci or genes. In diploid organisms such as humans or birds, chromosomes occur in pairs, and identically paired chromosomes are known as homologs. Example: Humans have 46 total chromosomes, 23 chromosome pairs, with 22 homologous chromosomes. (The sex chromosomes [XY] are paired, but they are NOT homologous.)

<u>Homozygote</u> - An individual who has inherited identical alleles (variants) at a given locus (gene) on homologous (matching) chromosomes. Examples: AA or aa. Penguin in Zebra finches or Fawn in Society finches or Shafttails. All these examples are homozygous recessive. A double factored Red Headed Gouldian is homozygous dominant.

Homozygous - See "homozygote."

Hybrid - Offspring from mating individuals from 2 different species or 2 different genera.

<u>Ino</u> - Generalized term for severely reduced pigment mutations in birds resulting in little to no skin, eye or feather pigments. The Ino suffix is added to various mutations to create commonly used terms like Creamino or Lutino. The root of the term comes from Greek mythology. Ino was the white goddess. See also "Sex-Linked Ino," "Non Sex-Linked Ino," "Albino," "Creamino" and "Lutino."

Intergeneric Hybrid - The offspring from mating birds of two different genera. Example: Society Finch (Lonchura striata domestica) x Shafttail Finch (Poephila acuticauda).

Interspecific Hybrid - The offspring from mating birds of two different species. Example: White Rumped Mannikin (Lochura striata) x White headed Nun (Lonchura maja).

<u>Intraspecific Hybrid</u> - The offspring from mating of 2 different subspecies. Example: Zebra Finch (Taeniopygia guttata castanotis) x Timor Zebra Finch (Taeniopygia guttata guttata).

<u>Knock out mutation</u> - A completely disrupted or inactivated gene such that its protein product is totally nonfunctional. Example: Albino in Society Finches.

Lacewing - A Budgerigar recombination mutation involving the sex-linked Ino and Cinnamon mutations. The Lacewing mutation is different and distinct from either the Cinnamon or Ino mutations alone. They are also red eyed.

<u>LB</u> - Abbreviation for Lightback Zebra Finch. One of three alleles of the sex-linked CFW multiple allelic series.

Locus (plural Loci) - The location of a gene on a chromosome or a genetic map.

Linkage - The proximal relationship of two genes or loci on a chromosome. The closer together these two genes are relative to one another, the more tightly they are linked, and there is a lower likelihood of crossover or genetic recombination.

Lutino - The common name for sex-linked Ino in yellow ground birds. Lutinos are bright yellow with red eyes.

<u>Melanin</u> - A class of biochemically complex pigments composed of long polymeric chains. Melanin pigments are synthesized in melanocyte epidermal cells where they may color the skin. They are also deposited in developing feather follicles during the molt giving black, brown and rust coloration to feathers.

Melanoblast - An epidermal cell, the developmental precursor for a melanocyte.

<u>Melanocyte</u> - An epidermal (skin) cell which is the site of melanin synthesis. Melanocytes are in close association with feather tracts.

<u>Mocha Brown</u> - Medium brown shade of Euro Bengalese Finch. In American Societies, Chestnut is the Mocha Brown analog. See "Euro."

<u>Modifier</u> - A minor gene that does not act on its own but rather affects the expression of another gene. Modifiers cannot be visualized in all phenotypes. Example: Fawn washed back in CFW Zebras.

Morph - Common term for a color variant or a color mutation. A distinct genetic form.

<u>Mule</u> - F1 hybrid offspring from an interspecific or intergeneric hybridization. Mules are typically sterile.

<u>Multiple Allelic Series</u> - A set of three or more alleles potentially able to be expressed at a given locus. In a diploid organism like birds, only two alleles or genetic variants can be present at one time. Examples: LB, R CFW and C CFW in the Zebra Finch or the human ABO blood typing system.

<u>Nonsex-Linked Ino</u> - The Ino mutation when it occurs on an autosome (chromosome other than the sex chromosomes).

Ocular Albinism (Hypopigmentation) - Extremely reduced or the complete absence of eye pigments. Commonly called red eyed.

Oculocutaneous Albinism - Extremely reduced or the complete absence of eye and body pigments. See "Ino" and "Albino."

<u>Par-Ino</u> - Literally 'partial Ino'. Creamino and Lutino are par-inos as they retain residual melanin pigments. Albino is a full Ino.

Pearlino - In Societies, a hypothetical crossover mutation between Creamino and Pearl. Both loci are located on the same Z (X) sex chromosome.

<u>Phaeomelanin</u> - One of two major classes of melanin. Phaeomelanin is typically reddish brown, rust or warm chestnut in color though it can appear bright red or even yellow in certain circumstances. Human red hair and wild type Zebra Finch cheek patches contain a very high proportion of phaeomelanin pigments.

<u>Phenotype</u> - The visual or measurable characteristics of an individual bird or an individual gene. Outward appearance. Gene expression we can see or measure.

<u>Phino</u> - Literally 'phaeomelanin Ino'. An autosomal mutation that results in the complete reduction of eumelanin in the Zebra Finch. Phinos only had orange markings and were similar in appearance to the double factored Florida Fancy, only Phinos had red eyes. This mutation was lost.

Progeny - The immediate or first generation offspring from sexual reproduction.

<u>R CFW/C CFW</u> - A male zebra finch which carries both CFW alleles, or put another way, a male Zebra Finch which is split for both CFW mutations. A hen can never be R CFW/C CFW. An R CFW/C CFW has an intermediate phenotype. Which CFW is written first is arbitrary. It could just as easily be written C CFW/R CFW.

<u>Recessive</u> - A mutant allele which is masked by a dominant or visible allele. An individual must receive two recessive alleles, one from each parent, in order to see the hidden or recessive mutant phenotype. Examples: White Breasted in Gouldians, Gray in Societies or White in Zebras. The most common form of a mutation.

<u>Recombination</u> - Commonly called crossover. The exchange of portions of homologous (matched) chromosomes during the formation of gametes (eggs and sperm). There is no genetic recombination on the W (Y) chromosome in female birds because the Z (X) and W (Y) chromosomes are not homologous.

<u>Red Brown</u> - Aka Foxy Red or Red Fox. Rich intense reddish brown shade of Euro Bengalese Finch. In American Societies. Fawn is the Red Brown analog. See "Euro."

<u>Red eyed</u> - Eyes which lack most or all of the typical pigments as found in the wild type. Red eyes have a pinkish red color similar to albino rabbits, rats or mice. Red eyed is not to be confused with maroon or deep red eye color.

<u>Segregation</u> - The occurrence of different phenotypes amongst progeny. Also, the separation of homologous chromosomes during gamete (sperm or egg) formation. Put another way, the separation of paired genes during germ cell formation. Mendel's first law of genetic inheritance.

<u>Selection</u> - The act of determining which phenotypic traits a breeder prefers. One can select for a preferred trait and keep birds with a certain characteristic, or one can select against undesirable traits and cull these birds.

<u>Sex Chromosomes</u> - Determine which gender an organism will be. In birds and butterflies, these are the Z or W chromosomes rather than the X or Y chromosomes as they are commonly referred to in most other organisms. Sex determination is still unclear in birds, however ZZ (XX) constitutes the male gender, while ZW (XY) determines the hen's gender. Remember that sex determination is the opposite in birds than it is for mammals.

Sex-Linked - A mutation which occurs on the Z (X) chromosome in birds.

<u>Sex-Linked Co-Dominant</u> - A mutation which occurs on the avian Z (X) sex chromosome and is inherited in a co-dominant manner. Only one copy of the mutation needs to be present in order to see partial expression of the mutation or color. Example: single factored Yellow Bodied in purple breasted male Gouldians.

<u>Sex-Linked Dominant</u> - A mutation which occurs on the avian Z (X) sex chromosome and is inherited in a dominant manner. Only one copy of the mutation need be present in order to see full expression of the mutation or color. Example: Red headed in Gouldians.

<u>Sex-Linked Ino (SL Ino)</u> - Ino mutation that occurs on the avian sex (Z) chromosome. Unlike NSL-Ino, SL-ino is NOT a mutation in tyrosinase. In fact, SL ino birds have higher than normal levels of tyrosinase. It is still not clear which enzyme is affected by this mutation. Melanin production is extremely reduced in SL inos, although there are certain amounts of residual melanin pigments still synthesized.

<u>Sex-Linked Recessive</u> - A mutation which occurs on the avian Z (X) sex chromosome and is inherited in a recessive manner. Hens can never be split for any sex-linked mutation, and they inherit their Z (X) chromosome and any mutations on it ONLY from the father. The mother always gives the W (Y) chromosome to her daughters. In hens, what you see is what you get with sex-linked mutations. Males can be split for sex-linked recessive mutations. Example: CFW, LB, Fawn in Zebra Finches, Creamino and Pearl in Societies, Black Headed in Gouldians.

<u>Single Factor (SF)</u> - A term for co-dominant mutations, when only one mutant allele is present in an individual. Only one copy of the mutation need be present in order to see partial expression of the mutation or color. Examples: SF Florida Fancy in Zebra Finches or SF Yellow Backed purple breasted male Gouldians. <u>Split</u> - This is the layman's terminology for a heterozygote. Commonly written as dominant mutation/recessive mutation. Examples: Aa, or Green Backed/Blue Backed in Gouldians. See "heterozygote."

<u>Tyrosinase</u> - The rate limiting enzyme absolutely essential for ALL melanin synthesis. If this enzyme is nonfunctional or mutated, the bird will not be able to make any melanins at all. See "Albino."

<u>W Chromsome</u> - The avian female sex chromosome. Female birds have the ZW (XY) genotype. The W chromosome would be equivalent to the Y chromosome in humans. Avian sex determination is the opposite from most species.

White Ground - A bird that appears white when all melanin is removed from its feathers.

<u>Wild Type</u> - The coloration and patterning of a bird as found in the wild. This is the dominant phenotype. Aka normal.

Yellow Ground - A bird that appears yellow (due to carotenoids) when all melanin is removed from its feathers.

<u>Z Chromosome</u> - The avian male sex chromosome. Male birds have the ZZ (XX) genotype. The Z chromosome would be equivalent to the X chromosome in humans. Avian sex determination is opposite from most species.

Christine ACY Kumar has been breeding Estrildid finches for 5 years. Her passion lies with color mutational and combinational breeding/selection, and she works extensively with Zebra, Bengalese & Gouldian Finches, as well as other Australian Grassfinches and Blue Capped Cordon Blues. Christine is Moderator/Owner of multiple finch-related online yahoo groups, including Zebrafinch, Societyfinch, Finch\_Friends, Goulds\_Rule, LinkoftheDay, and Finch\_Softbills\_Metropolitan. When not handfeeding, moderating or writing, Christine can be found at her computer creating digital art work of her finches. Trained in molecular medicine and cancer biology, Christine is currently on a professional leave of absence.

Lady Gouldians (All mutations - normals, yellows, blues) Star Finches - Strawberry Finches Owls - Shaftails - Cherry Finches Diamond Sparrows - Blue Capped Waxbills

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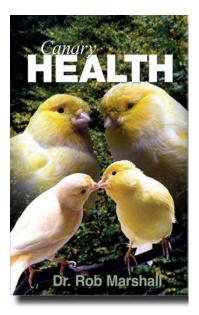


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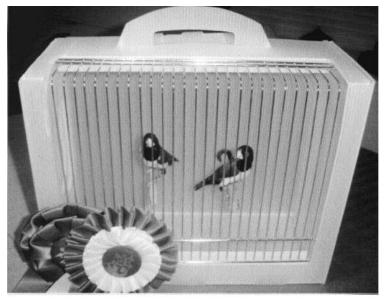
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## Fostering with Society Finches Stephan V. Hopman, Monee, Illinois

In a perfect world a pair of exotic finches will always raise their own chicks, however, sometimes this is not the case. At times they will throw the chicks out at hatching or just let them starve at various stages of development. As a solution, the numbers can be greatly increased by using the Society finch to foster some of our African and Australian finches.

First, what is a society finch and where are they from? According to authors Henry J. Bates & Robert L. Busenbark in 'Finches and Softbilled Birds' (T.F.H. Publications in 1970) the Society or Bengalese finch (Lonchura domestica) was evolved from a series of hybridizations by the Chinese so long ago that true parentage is not known.\* They go on to explain the similarities between the Sharp-Tailed, Striated & Philippine White-Breasted Manikins as compared to the modern Society finch.

What they produced is a bird who it seems greatest joy and purpose in life is to reproduce and feed nestlings. Another school of thought is that they are the domesticated form of the Striated Manikin.

Let me mention that when I foster an exotic finch, I start out with virgin societies. They may have laid eggs before - but have never actually hatched out a live baby. If they have, there is a good chance they will reject the hatchling. Society babies are comparatively large, pink and hairless as compared to Owls (small, dark with a little fuzz) or Blue Caps (small, dark and very fuzzy). Gouldians and Parrot finch babies are more like society babies and are very easily fostered. When the exotic chicks hatch the Societies see it they think "babyfeed it". If they have raised their own before, when a Blue Cap or Owl hatches they look at it - think it's defective, and let it starve.

One way that I use societies to foster is to setup a true pair - one male and one female in a cage by themselves with a large covered wicker basket type nest. I usually start the nest by placing a small handful of dried Bermuda long stem grass or Rice hay into the basket and compressing it into the bottom of the basket. I'll usually let them arrange it for a day or two before adding more nesting material. Then I place a handful of switch grass in the nest and again give them a day or so to arrange that. Finally I'll add a handful of Phragmites plumes to the nest and allow them to complete construction. This way the nest is constructed with thicker fibers on the bottom and completed with fine soft fibers for the final layer. The eggs then won't accidentally slip through the nest or find their way to an odd corner and not be incubated.

If the pair is in condition, the eggs should be laid about a week after the nest is completed. If not, you can usually get them started sitting by placing 4-5 "dummy" eggs or infertile eggs in the nest for them. If they've never raised babies before it might take them up to a week or so to start sitting "tight" or constantly incubating the eggs. Once they do so simply put the eggs you want them to raise underneath them. I usually store the dummy eggs in a bowl of dry seed in a drawer in the bird room.

Another way to set a pair up to foster is to use two males. They will usually raise a clutch better than a male-female pair. There are 2 reasons for this. First, the female society has a very good "internal clock". When she starts sitting she knows exactly how long she has to incubate before the eggs should hatch. Some of the species fostered can differ by several days and if the timing isn't just right she may abandon the babies usually within a day or two of hatching. She then starts courting & presenting herself to the male and he quickly loses interest in the nest. This is a natural behavior and it makes sense when you consider that if she thought she produced the eggs and she felt they wouldn't hatch, it's in their best interest to start another clutch as soon as possible. Another way her internal clock can hinder the clutch is in feeding the nestlings. Some of the African & Australian finch species need to be fed out a little longer than the societies do. When her clock tells her the young should be fed out she will stop feeding and again entice the male to forget his feeding duties to breed with her. If this happens you will rarely lose the whole clutch, just the youngest baby or two. Murphy 's Law of course applies well in this case - generally the more expensive or valuable to you the chicks would be the greater the chance that something will go wrong.

The third way that some folks foster babies is to use a trio of one male to two females, two males to one female or three males. The theory is that at least one of the birds is always willing to sit on the eggs or feed the young.

Once the chicks hatch then you have to hope they are fed properly. All of the experts' books say that for the first week to 10 days of a chick's life they are fed nothing but insects. This is because at this stage of their life the young bird must put on weight, grow strong bones and feather up. Insufficient types of food can be just as damaging as insufficient quantity. The results of either lacking will have the same result - death of the chick. As an example, when I first started fostering Blue Cap Cordon Bleus to Societies I thought it was normal to have 4-5 chicks hatch and only 1-2 make it out of the nest. Then I started chopping up 20-30 large mealworms on top of the egg food mixture twice a day. The fosters would feed the mealworms first before feeding the egg food since they were on top. This added burst of protein was just what the young chicks needed to put on the initial growth spurt. After this I had whole clutches live as a matter of course.

Grasshoppers are another good source of live food. Chop them up as you would the mealworms and they will be fed to the chicks with relish!

Try a couple of these methods for fostering with Societies and see which one works best for you.

Steve Hopman breeds and exhibits finches & canaries. He has been "in the hobby" for 23 years. He has also been a featured speaker at bird clubs in both Illinois and Indiana. His full time job is as a Boiler and Pressure Vessel Inspector for BP Oil's Whiting Indiana Refinery. As the Refinery's Wildlife Specialist he has been fortunate enough to assist in the banding of the Peregrine Falcons breeding there.

<sup>\*</sup>Henry J. Bates & Robert L. Busenbark -Finches & Softbilled Birds T.F.H. Pub. (1970)

# AVIAN FLU EXOTIC BIRD POLICY

By Steve Duncan, Coordinator National Avian Welfare Alliance (NAWA)

#### Background

All Influenza A viruses can infect birds. Influenza A viruses that can infect birds, but cannot easily infect humans are called Avian Flu viruses. Influenza A viruses that have the ability to easily infect humans and can be transmitted from human to human are called Human Influenza A viruses. The Avian Flu disease was first described in Italy in 1878, and the Avian Flu virus was first identified in 1955.

Avian Flu exists in many strains and is endemic to wild waterfowl with local rates of up to 60% positive for some waterfowl, such as mallards, but nearly all other varieties of birds have a low rate of Avian Flu incidence. The presence of Avian Flu in wild bird populations does not mean that the birds are diseased. Because the birds that commonly harbor these viruses have developed resistance over many millennia, they rarely suffer illness from Avian Flu viruses. Instead, they act as the natural reservoir of Avian Flu viruses.

Higher mortality is seen when bird species are infected with virus subtypes that are not normally found in that species of bird resulting in low resistance levels to that virus subtype. Transmission is primarily by fecal material and also via respiratory/nasal secretions.

Most Avian Flu strains are not highly lethal, but Avian Flu viruses undergo frequent mutations that change the pathogenicity of the virus strains. There are two categories of pathogenicty; Highly Pathogenic Avian Influenza (HPAI) and Low Pathogenic Avian Influenza (LPAI). HPAI outbreaks can cause mortality in wild waterfowl and can also cause significant losses to domestic poultry.

Imported exotic birds (non-domesticated birds that are kept in captivity that are not native to this country) must go through USDA guarantine. During guarantine, the birds are tested for Avian Influenza, among other diseases. In the many years that testing has been performed on exotic birds in USDA quarantine, there has been only one isolation of Pathogenic Avian Influenza in an exotic bird (a Pekin Robin with H7N1), ref: Dennis Senne et al. in Avian Diseases 40:425-37(1996). The isolated strain was not pathogenic to poultry or humans. Imported and domestic exotic birds have never been a source of HPAI infections in the United States. Exotic birds are not a significant public health risk for Avian Influenza. Pigeons have also been shown to be resistant to Avian Influenza infection.

Influenza viruses do not persist in the environment outside of a host for long periods of time. Under ideal conditions at room temperatures, human flu viruses can remain infective for about one week. Exposure to sunlight drastically reduces the length of time flu viruses can remain infective. For cross infection of Avian Flu viruses to human hosts, it is likely that direct heavy exposure to an infected bird's body fluids is necessary. Influenza viruses are classified by the types of proteins on their surface. There are 16 types of hemaglutinin (H) proteins and 9 types of neuraminidase (N) proteins. These 2 protein types can be combined in many different ways to create a great number of unique subtypes. Within each subtype there are also numerous strains with varying disease properties.

Influenza A viruses are H5, H7, or H9. HPAI (High pathogenic) has only occurred with H5 and H7 subtypes. H9 has only produced LPAI (Low pathogenic) cases. Each of these 3 H-types could potentially be paired with any of the nine N proteins to yield 27 different Influenza A subtypes, all of which can infect birds.

Currently there are only 3 recognized subtypes of Influenza A viruses that circulate in the human population. It is clear that Avian Flu viruses rarely, if ever, jump straight to becoming Human Flu viruses. Typically, Avian Influenza must undergo a series of mutations or genetic changes to acquire the ability of human to human transmission. Larger genetic changes to a virus can happen when an animal or human is infected with two different strains of influenza (H5N1 mixing with H1N1 for example). Due to the nature of viruses, genetic information between these two strains can be interchanged and potentially create a new strain unique from either parent; this is referred to as antigenic "shift" (in contrast to antigenic "drift" explained above). These new strains are what concerns health officials. in that they can potentially lead to viral transmission in pandemic proportions. However, these large changes in genetic makeup are just as likely to

result in significant differences in pathogenicity.

Human flu strains are not able to be passed easily from bird to bird. The genetic changes necessary for a virus to become efficient at infecting humans generally preclude it from being efficient at infecting birds. These genetic changes also change the pathogenicity of the virus, most often resulting in a less pathogenic strain.

Avian Flu is a concern since the various strains can cause mortality and/or low production in poultry and under certain specific conditions can infect and cause illness in humans. The most likely route of infection occurs when free-range domestic ducks or poultry commingle with wild ducks, the natural reservoir, and then carry the virus back to domestic poultry housing where it can spread to the rest of the poultry flock. Pathogenic forms of Avian Flu can cause significant mortality in domestic poultry since these birds do not posses the level of resistance that wild waterfowl have to these viruses. Commercial poultry are also genetically very closely related so disease can spread rapidly through a flock. Humans can become infected by handling infected poultry or contaminated surfaces.

Periodic outbreaks in poultry have occurred around the world, including the United States, since the disease was identified over one-hundredtwenty-five years ago. Since 1997, for example, more than 16 outbreaks of H5 andH7 influenza have occurred in poultry within the United States. The virus strains in each of these outbreaks were just as likely as H5N1 to become human influenza viruses, yet none of them made the jump from avian virus to human virus. Of all the people exposed to the avian flu during these16 outbreaks, according to the CDC (http://www.cdc.gov/flu/avian/), only 2 mild cases of human infection in the U.S. resulted. Members of clean up crews for Avian Flu infected barns in Canada were all tested for signs of the influenza virus, amazingly none tested positive for the virus, even after prolonged periods of exposure.

In 1997, transmission of Avian Influenza A H5N1 resulted in the deaths of 6 people in Hong Kong. Since then, a total of approximately 60 people have died from H5N1. Millions of domestic birds in Asia have become infected and have been destroyed to control the spread of the virus. Although over 100 people have become infected with H5N1 in Asia, this is a very small number in comparison to the probability of numerous human exposures resulting from husbandry practices there.

To date, all cases of H5N1 infection in humans can be traced to direct contact with infected poultry. Husbandry practices in Asia are a major factor in its presence there. Many families keep small poultry flocks for their own consumption and for income. Poultry are allowed to roam freely, often in yards where children play, and poultry often enter human dwellings. At the first signs of illness in poultry, the birds are frequently slaughtered for consumption. Exposure during slaughter, de-feathering and butchering of infected birds is considered most likely to result in human infection and this practice has been tied to a number of the human cases in Asia.

Other than certain species of ducks, all species of birds that can be infected with the H5N1 subtype of Avian Flu will exhibit high rates of mortality and morbidity within 48 hours of infection with this virus. Exotic birds have had zero incidence of H5N1 and are not likely to become a source of infection.

#### Response to H5N1

The threat to human health and to poultry production in the United States necessitates an organized plan of action to be in place prior to the possible arrival of H5N1 here. Although H5N1 has not been found in captive birds, it may become necessary to examine or monitor captive birds for the virus. It is important to enhance cooperation between captive bird owners and public health officials.

Media reports about H5N1 have created an unreasonably heightened state of public fear that any bird could cause Avian Flu. Any government response to H5N1 will likely be influenced by public perception and demand. In the face of irrational fears, a rational response is necessary to avoid further deterioration of public perception.

Culling of infected flocks is a vital means to control the spread of the virus among susceptible birds. It should be obvious that culling birds that are not infected or that are not likely to become infected will not enhance our ability to control the spread of Avian Flu.

As long as the H5N1 virus does not gain the ability to transmit from human to human, its impact on human health will continue to be minimal. However, it is important to eliminate the virus from the avian population to protect both birds and people. In the unlikely event that this virus gains the ability for human to human transmission, it must be recognized that culling birds will no longer have an impact on controlling the spread of the virus. If the virus arrives in the United States in a state that allows It to spread directly from human to human, any government response that includes culling of birds will only drain vital resources away from vital human health services.

Because imports of most exotic birds were halted in 1992 under the Wild Bird Conservation Act, much of the breeding stock available to aviculturists is irreplaceable. Many of these birds are endangered in their native habitats and the captive birds may represent a valuable genetic resource for the survival of that species. To prevent unnecessary culling of valuable and irreplaceable birds, the following policy is formulated to establish guidelines to protect captive bird facilities and pet bird owners, yet allow for appropriate measures should H5N1 arrive in the United States.

#### H5N1 Avian Flu Captive Bird Policy

#### Part 1 (Human H5N1)

If H5N1 arrives in the United States in a form that can be transmitted from human to human, culling of captive birds to control H5N1 will have no impact on the spread of the virus. Under this scenario, H5N1 is a human health issue that is not affected by birds. Therefore, culling of captive birds to control Human H5N1 shall not occur.

#### Part 2 (Avian H5N1)

Bird Marts and Bird Exhibitions, where live birds are brought together from separate facilities, will be cancelled or postponed within a county with any positive cases of H5N1. Such events will remain cancelled or postponed until such time as the county remains H5N1 free for 30 days.

An Avian H5N1 eradication program includes surveillance for infected birds and euthanasia of all birds testing positive for Avian H5N1. Typically all birds on a premise will be destroyed if any bird on that premise tests positive for H5N1. Exceptions to this policy are outlined below.

Captive birds housed in cages within enclosed structures or housed in outdoor caging under specified conditions should be exempted from euthanasia according to the following policy.

Birds qualified for exemption from euthanasia include

A. All birds greater than 500 meters from any H5N1 positive.

B. Endangered species (protected under the U.S. Endangered Species Act) assessed in conjunction with the U.S. Fish and Wildlife Service, which is authorized to quarantine, seize, or destroy endangered species.

C. Rare and/or threatened species as listed in the CITES Appendices I, II or III.

D. Genetically significant species or strains of captive or domestic avian species.

E. Captive birds with an effective biosecurity program that protects them from H5N1. An appropriate biosecurity program includes:

• Avoiding contact with affected birds; isolating birds from loose birds in the neighborhood; preventing people from spreading the disease on contaminated clothing, shoes, and vehicles; and cleaning and disinfecting all equipment and supplies in contact with affected birds.

• Owners who do not have outside birds will be considered at lower risk than those who have outside birds.

 If birds are housed outside other risk factors will be considered including:

\* Are birds caged, with covering over the feeding and watering areas?

\* Are birds isolated from contacting potential H5N1 carriers?

\* Are there free-ranging poultry in the neighborhood?

\* Is there a fence that separates the property from free-ranging poultry and other vectors?

• Birds included in categories A-D will be evaluated and quarantined on the premises, or taken to a USDA

quarantine station. Only birds that test positive for H5N1 will be euthanized. Any birds exempted from euthanasia will be tested, examined, and isolated.

Isolation facilities must provide secure bio-containment against H5N1. If the bird is quarantined the owner/operator must:

- Sign a compliance agreement.
- · Provide a biosecurity plan.

• Allow samples to be taken by a state or federal animal health official for virus isolation. A minimum of two consecutive negative samples at least seven days apart are required.

 Agree to additional guidelines for determining when the quarantine can be removed as discussed at the time the compliance agreement is signed. The quarantine will remain in place for a minimum of 14 days. The guarantine will not be lifted until surveillance has been completed in the neighborhood around the guarantined premises (in an approximately 1-kilometer zone) and until there are no infected premises within that 1-kilometer zone around the guarantined premises. Individual birds will be euthanized if test results show that they are infected with H5N1.

Steve Duncan is the Coordinator of the National Avian Welfare Alliance (NAWA), of which NFSS is a part. The objectives of NAWA are 1) to address regulatory issues imposed by the recently amended Animal Welfare Act; and 2) to create a strong network that can respond to additional issues and problems that affect bird owners in the U.S.

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News from NFSS Judges Panel Director Martha Wigmore



# Best Wishes to Retiring Judge Harold Bowles!

Join with me in celebrating NFSS Panel Judge Harold Bowles' 17 years of service at the show bench! Harold's name first appeared in our listing of panel judges in the Jan/Feb 1988 issue of NFSS' bi-monthly publication and, as a panel judge for several national organizations, Harold has been in high demand at NFSS shows around the country. Harold wrote recently, "I have been a bird judge for almost 27 years and I've been on the NFSS judges panel for several years of those years. This has been an enjoyment and I will miss it. However, I'm retiring from the NFSS judges panel effective the end of this year (2005). I no longer have finches and my health is declining. I wish you and NFSS the best of everything to come." Harold touched us all with his graciousness and Southern gentlemanly ways. Thank you for your years of service, Harold and best wishes, kind Sir

#### NFSS General Standard Approved

NFSS has formally approved a General Standard for your use when evaluating the varieties of finches and softbills that have no specific standard. Written by Jon Hoffman in 1992, the document has proven of tremendous benefit to judges, exhibitors, breeders and fanciers through the many years since then! The final approved version will be printed in "The NFSS Journal" for your records.

#### 2006 Will See NFSS Classification Changes!

Expanded Society Finch classes that include the European and Japanese mutations are coming your way in 2006! Watch the "The NFSS Journal" next year for your copy of the revised 2006 NFSS Show Classifications. which will also include changes in "Finches of America" and new classes for Black Cheeked Zebra Finch and Gouldian pairs. Make sure your affiliated club gets their copy early next year, from "The NFSS Journal," the NFSS website or from the NFSS Judges Panel Director, along with the corresponding Show Secretary Worksheets.

#### NFSS Judges Panel - end of 2005

As we approach the end of 2005, NFSS has 23 active panel judges, 1 judge under suspension in 2005 for non-payment of annual judges fee (Teri McAuliffe), and one applicant to the NFSS Apprentice Judge program. If YOU are interested in participating in NFSS' outstanding apprentice judge program, read all about it in "The NFSS Judges Handbook and Official Standards," available through NFSS Finchshop. Contact the NFSS Judges Panel Director for further information.

My best regards to ALL of you! And have a happy new year with your birds! See you at the shows!

# Draft 2005 Society Standard

# Society (Bengalese) Finch Standard

# Lonchura striata, domesticated form

*Revision Proposed to the* National Finch and Softbill Society *August 2005* 

This is a draft proposal for a revised **Society Finch Standard** for finches and softbills. It is published here for the purpose of encouraging NFSS members and judges to submit comments and suggestions for revisions before a final version is brought before the NFSS Board of Directors for approval. Any comments should be sent to Martha Wigmore, NFSS Judges Panel Director. Many thanks to the Committee members who have prepared this Revision for us!

CONFORMA	۲ION	50 POINTS
	Head and Body	25 pts
	Wings	10 pts
	Tail	15 pts
CONDITION.		
COLOR AND	MARKINGS	20 POINTS
DEPORTMEN	IT AND PRESENTATION	10 <b>POINTS</b>

## **CONFORMATION (50 POINTS)**

#### **Distributed as follows:**

#### Head and Body: 25 points.

The ideal Society Finch will have a combined beak, head, body, and tail length of between 4 1/4 and 4 1/2 inches. The body appears trim and slightly muscular, with its broadest point about the chest and shoulders. From the chin, the lower body line flows outward to its deepest point at the chest, continuing smoothly through the abdomen, with only slight roundness, tapering slightly to the legs. Behind the legs to the tail, the body tapers to the vent. The line of the back runs smoothly and slightly rounded from the base of the neck to the tail. The back is slightly rounded from shoulder to shoulder, and the sides of the body are slightly rounded from the shoulders through the vent.

In typical mannikin fashion, the forehead flows directly from the line of the upper mandibles with no rise. The head has a slightly rounded crown, flowing smoothly to the neck. Eyes are

set forward of the center of the head, with the bottom of the eye even with the line where the mandibles meet. The neck is, from all views, broader than the head, increasing in width as it approaches the shoulders. There is little or no dip in the backline of the neck. The Society Finch should sit on the perch at an angle of 35 degrees from the horizontal; it is natural for the Society Finch to frequently assume a more upright position of up to 45 degrees from the horizontal. The legs must be equal and parallel. Missing toes or nails are faulted. Nails are of suitable length to assure proper grip.

#### Wings: 10 points.

The wings are carried evenly and set close to the body. The wings blend smoothly into the back with the wing tips meeting at the root of the tail. Crossed or drooping wings are faulted.

#### Tail: 15 points.

The tail approaches 2 inches in length. It smoothly follows the top and bottom lines off the body with the upper and under coverts. The flight feathers of the tail are neat and gradually taper, and the central feathers form a neat and obvious "V" up. It should not droop or rise from the back line.

## **CONDITION (20 POINTS)**

A healthy well-conditioned Society Finch appears clean, alert, and tight-feathered. The eyes are clear and bright. Feathers are not ragged, frayed, or broken. The legs and feet are clean and freed of scaling. The upper and lower mandibles must be smooth, clean, and free of imperfections, with the sides of the mandibles curving inward slightly where they meet.

### **COLOR AND MARKINGS (20 POINTS)**

The color and markings should be as described in the following color varieties.

#### VARIEGATED SERIES

#### **Mottled Pied:**

Any plumage color as defined in the self colors (except for the following: dilutes, clearwings, inos, pearls), with this change: bird to have white patches of plumage, pink patches on the legs and feet, and horn colored patches on the mandible, judged for symmetry and extent. Should have more than 30% variegation, but should not be overly variegated (not to approach saddleback coloration). While ideally displaying as much white as possible, it must maintain at least a thin "collar" mark of colored plumage on the chest. Bird faulted for excessive white, approaching saddleback markings, or for too little variegation.

#### Saddleback (Marked-White) Pied:

Any plumage color as defined in the self colors (except for the following: dilutes, clearwings, inos, pearls), with this change: bird to have white patches of plumage, and horn colored patches on the mandible, judged for symmetry and extent; also, the legs and feet are to be pink and matched in color. Should have more than 60% variegation. No colored plumage allowed on frontal area. Color should only remain on the upper shoulders, cap, and rump/upper tail coverts. All markings are to be separated by areas of uncolored (pied)

plumage, being penalized for any running together of the above listed markings. It is accepted for saddleback to lack any of the above listed markings, but must not show ticking in said area. No fault for markings around the eyes, such as an eye line or eye ring.

#### **Dark-Eyed White:**

The white should be solid white: no colored feathers permissible. The legs must be pink and matched in color. The beak, both upper and lower mandibles, should be horn and even in color with a slight pinkish tinge.

#### AMERICAN COLOR SERIES

#### **Chocolate Self:**

The chocolate should be the color of deep plain chocolate. Must show the chocolate on the head, wings, tail, and halfway down the breast. The tail, the wings, and the facial area may be of darker shade, while the cheeks and upper back/shoulder areas are to be slightly lighter golden chocolate. The lower half of the breast and belly are to be a light beige/chocolate, showing little to no chocolate flecking, and faulted if showing a sharp scale-like pattern associated with the European Color Series. This belly coloration shall appear to carry over in a band across the rump, but shall be slightly lighter with less distinction in pattern. The legs must be dark and matched in color. The upper mandible should be dark, as the body color, and the lower mandible should be steel gray.

#### Fawn Self:

The fawn self should be a creamy cinnamon-brown, similar to the red/orange tones of the cheek patch of a Normal Zebra Finch. Must show the fawn coloration on the head, wings, tail, and halfway down the breast. The color should remain even on all these areas, not lightening at any point. The lower half of the breast and belly are to be light beige/fawn, showing little to no fawn flecking, and faulted if showing a sharp scale-like pattern associated with the European Color Series. This belly coloration shall appear to carry over in a band across the rump, but shall be slightly lighter with less distinction in pattern. The legs must be pink and matched in color. The beak, both upper and lower mandibles, should be light and even in color with a slight pinkish tinge.

#### **Chestnut Self:**

The chestnut self should be a warm reddish brown. It shall not be so red as to approach fawn coloration, nor be as dark as to approach chocolate coloration. Must show the chestnut on the head, wings, tail, and halfway down the breast. The color should remain even on all of these areas, not darkening at any point. The lower half of the breast, with the belly, is to be light beige/chestnut, showing little to no chestnut flecking, and faulted if showing a sharp scale-like pattern associated with the European Color Series. This belly coloration shall appear to carry over in a band across the rump, but shall be slightly lighter with less distinction in pattern. The legs must be dark and matched in color. The upper mandible should be dark and the lower mandible steel gray (as in the chocolate society).

#### **Dilute:**

The feather color should be a less intense shade of its self color form: chocolate, fawn, or chestnut. This color should not appear in variegated birds. Should not appear too close to original color (barely lightened), nor become colorless (over-diluted). Ideally dilution should approach 50%. It should be understood that the lighter the color (i.e. fawn), the more easily it is diluted, while darker colors are more difficult to dilute.

#### **EUROPEAN COLOR SERIES**

#### Euro Chocolate (Black / Brown Self):

The Black/Brown should be a deep black brown, a darker color being more desirable. This deep black color shall extend evenly over the head, wings, tail, and halfway down the breast; a slight lightening of color, to a deep brown coloration, is permissible on the upper shoulder/back area. The lower half of the breast and belly shall be white with sharp, fine, even, well-defined V-shaped markings that should be black. A tendency toward a dirty white color on the belly shall be faulted. This belly coloration shall appear to carry over in a band across the rump, but shall be slightly lighter with less distinction in pattern. On the mantle of the Black/Brown the shaft of the feathers shall be colorless, creating the image of fine, sharp, small stripes running parallel to the mid-line of the body. The legs should be gray to black with black nails. The upper mandible should be black and the lower mandible should be light gray. The eyes should be dark brown.

#### Euro Chocolate Gray (Black / Gray Self):

The Black/Gray should be a deep black-gray. This black-gray color shall extend evenly over the head, wings, tail, and halfway down the breast; the near black shade shall appear over most of this area, with a grayer shade appearing over the upper shoulders. The lower half of the breast and belly shall be stark white with sharp, fine, even, well-defined V-shaped markings that should be black/gray. A tendency toward a dirty white color on the belly shall be faulted. This belly coloration shall appear to carry over in a band across the rump, but shall be slightly lighter with less distinction in pattern. On the mantle of the Black/Gray the shaft of the feathers shall be colorless, creating the image of fine, sharp, small stripes running parallel to the mid-line of the body. The legs should be gray to black with black nails. The upper mandible should be black and the lower mandible should be light gray. The eyes should be dark brown.

#### Euro Chestnut (Mocca / Brown Self):

The Mocca/Brown should be an even coffee brown with a gray haze. It shall not be so dark as to approach Black/Brown coloration, nor shall it be so red as to approach Red/Brown coloration. This coffee brown with gray haze shall extend evenly over the head, wings, tail, and halfway down the breast. The lower breast and belly shall be a light cream color with sharp, fine, even, well-defined V-shaped markings that should be coffee brown with a gray haze. This belly coloration shall appear to carry over in a band across the rump, but shall be slightly lighter with less distinction in pattern. On the mantle, which is the same even coffee brown as the wings, the shaft of the feathers shall be near colorless, creating the image of fine, sharp, small stripes running parallel to the mid-line of the body. The legs should be dark gray with dark gray nails. The upper mandible should be dark brown and the lower mandible should be light gray. The eyes should be dark brown.

#### Euro Chestnut Gray (Mocca / Gray Self):

The Mocca/Gray should be an even, charcoal gray. It shall not be so dark as to approach Black/Gray coloration, nor shall it be so light as to approach Red/Gray coloration. This charcoal gray shall extend evenly over the head, wings, tail, and halfway down the breast. The lower breast and belly shall be near white with sharp, fine, even, well-defined V-shaped markings that should be beige gray. This belly coloration shall appear to carry over in a band across the rump, but shall be slightly lighter with less distinction in pattern. On the mantle, which is the same even charcoal gray as the wings, the shaft of the feathers shall be colorless, creating the image of fine, sharp, small stripes running parallel to the mid-line of the body. The legs should be dark gray with dark gray nails. The upper mandible should be dark brown.

#### Euro Chestnut Dilute (Mocca / Brown Dilute Self):

The dilute Mocca/Brown should be a uniform light coffee brown with a gray haze in color. Ideally the color should approach 50% dilution from normal (Mocca/Brown) coloration, neither too light nor too dark. This light coffee brown with a gray haze shall extend evenly over the head, wings, tail, and halfway down the breast. The lower breast and belly shall be near white with sharp, fine, even, well-defined V-shaped markings that should be gray. This belly coloration shall appear to carry over in a band across the rump, but shall be slightly lighter with less distinction in pattern. On the mantle, which is the same light coffee brown with a gray haze as the wings, the shaft of the feathers shall be colorless, creating the image of fine, sharp, small stripes running parallel to the mid-line of the body. The legs should be gray with gray nails. The upper mandible should be dark brown and the lower mandible should be light gray. The eyes should be dark brown.

#### Euro Chestnut Gray Dilute (Mocca / Gray Dilute):

The Mocca/Gray dilute should be a uniform light gray. Ideally the color should approach 50% dilution from normal (Mocca/Gray) coloration, neither too light nor too dark. This color shall not be so light as to approach the silver tones of a Red/Brown dilute gray, but shall maintain the slightly deeper charcoal-gray tones. The light gray shall extend evenly over the head, wings, tail, and halfway down the breast; the color shall remain even over this entire area. The lower breast and belly shall be almost white with sharp, fine, even, well-defined V-shaped markings that should be light gray. This belly coloration shall appear to carry over in a band across the rump, but shall be slightly lighter with less distinction in pattern. On the mantle, which is the same even light gray as the wings, the shaft of the feathers shall be colorless, creating the image of fine, sharp, small stripes running parallel to the mid-line of the body. The legs should be gray with gray nails. The upper mandible should be light gray. The eyes should be dark brown.

#### Euro Chestnut Clearwing (Mocca / Brown Clearwing Self):

The Mocca/Brown clearwing should be a uniform coffee brown with a gray tint on the forehead, top of the head, back of the head, cheeks, throat and halfway down the breast. The

Mocca/Brown clearwing is a bit lighter in color overall than the Mocca/Brown, though ideally these listed areas should aim to match the original Mocca/Brown color. The greater, median, and lesser wing coverts, the flight feathers and upper feathers of the nape are white with a light gray haze; this shall be uniform, and ideally be nearly white. The lower breast and belly shall be very light cream, ideally near white, with no markings. The legs should be gray with gray nails. The upper mandible should be dark brown and the lower mandible should be light gray. The eyes should be dark brown.

#### Euro Chestnut Gray Clearwing (Mocca / Gray Clearwing Self):

The Mocca/Gray clearwing should be a uniform gray on the forehead, top of the head, back of the head, cheeks, throat and halfway down the breast. The Mocca/Gray clearwing is a bit lighter in color overall than the Mocca/Gray, though ideally these listed areas should aim to match the original Mocca/Gray color. The greater, median, and lesser wing coverts, the flight feathers and upper feathers of the nape are white with a light gray haze; this shall be uniform, and ideally approaches white. The lower breast and belly shall be near white with no markings. The legs should be gray with gray nails. The upper mandible should be dark gray and the lower mandible should be light gray. The eyes should be dark brown.

#### Euro Fawn (Red / Brown Self):

The Red/Brown should be a uniform red brown. This color shall be as red as possible, and shall extend evenly over the head, wings, tail and halfway down the breast. The lower breast and belly shall be cream with sharp, fine, even, well-defined V-shaped markings that should be red brown. This belly coloration shall appear to carry over in a band across the rump, but shall be slightly lighter with less distinction in pattern. On the mantle, which is the same red brown as the wings, the shaft of the feathers shall be bright cream, creating the image of fine, sharp, small stripes running parallel to the mid-line of the body. The legs should be flesh colored and the nails horn colored. The upper mandible should be beige and the lower mandible should be light beige. The eyes should be brown.

#### Euro Fawn Gray (Red / Gray Self):

The Red/Gray should be uniform beige gray with a silvery tone. This color shall extend over the head, wings, tail and halfway down the breast. The lower breast and belly shall be nearly white with sharp, fine, even, well-defined V-shaped markings that should be beige gray. This belly coloration shall appear to carry over in a band across the rump, but shall be slightly lighter with less distinction in pattern. On the mantle, which is the same even beige gray as the wings, the shaft of the feathers shall be colorless, creating the image of fine, sharp, small stripes running parallel to the mid-line of the body. The legs should be flesh colored and the nails horn colored. The upper mandible should be beige gray and the lower mandible should be light beige. The eyes should be dark brown.

#### Euro Fawn Dilute (Red / Brown Dilute Self):

The Red/Brown dilute should be a uniform light red brown. Ideally the color should approach 50% dilution from normal (Red/Brown) coloration, neither too light nor too dark. This light red brown shall extend evenly over the head, wings, tail, and halfway down the breast. The lower breast and belly shall be light cream with sharp, fine, even, well-defined V-shaped markings that should be light red brown. This belly coloration shall appear to carry

over in a band across the rump, but shall be slightly lighter with less distinction in pattern. On the mantle, which is the same even red brown as the wings, the shaft of these feathers shall be light red brown, creating the image of fine, sharp, small stripes running parallel to the mid-line of the body. The legs should be flesh colored and the nails horn colored. The upper mandible should be beige and the lower mandible a shade lighter. The eyes should be brown.

#### Euro Fawn Gray Dilute (Red / Gray Dilute Self):

The Red/Gray dilute should be a uniform light beige gray. Ideally the color should approach a 50% dilution from normal (Red/Gray) coloration, neither too light nor too dark. This light beige gray color shall extend evenly over the head, wings, tail, and halfway down the breast. The lower breast and belly shall be nearly white with sharp, fine, even, well-defined V-shaped markings that should be light beige gray. This belly coloration shall appear to carry over in a band across the rump, but shall be slightly lighter with less distinction in pattern. On the mantle, which is the same even light beige gray as the wings, the shaft of these feathers shall be colorless, creating the image of fine, sharp, small stripes running parallel to the mid-line of the body. The legs should be flesh colored and the nails horn colored. The upper mandible should be light beige gray and the lower mandible a shade lighter. The eyes should be brown.

#### Euro Fawn Clearwing (Red / Brown Clearwing):

The Red/Brown clearwing should be a uniform red brown with a gray tint on the forehead, top of the head, back of the head, cheeks, throat and halfway down the breast. The Red/Brown clearwing is a bit lighter in color overall than the Red/Brown, though ideally these listed areas should aim to match the original Red/Brown color. The greater, median, and lesser wing coverts, the flight feathers and upper feathers of the nape are white with a light cream hue; this shall be uniform, and ideally should be near white. The lower breast and belly shall be near white with no markings. The legs should be flesh colored and the nails horn colored. The upper mandible should be beige and the lower mandible should be light beige. The eyes should be brown.

#### Euro Fawn Gray Clearwing (Red / Gray Clearwing):

The Red/Gray clearwing should be a uniform beige gray on the forehead, top of the head, back of the head, cheeks, throat and halfway down the breast. It shall be a more silvery tone than the charcoal-gray of the Mocca/Gray clearwing. The Red/Gray clearwing is a bit lighter in color overall than the Red/Gray, though ideally these listed areas should aim to match the original Red/Gray color. The greater, median, and lesser wing coverts, the flight feathers and upper feathers of the nape are white with a light beige tint; this shall be uniform, and ideally should be near white. The lower breast and belly shall be near white with no markings. The legs should be flesh colored and the nails horn colored. The upper mandible should be beige gray and the lower mandible should be light beige. The eyes should be dark brown.

#### Creamino ("Ino"):

The creamino is a uniform warm cream. This color shall not approach white, but shall maintain a visible depth of "cream" tone coloration. This color shall extend over the head, wings, tail, and halfway down the breast. The breast and belly shall be near white sharp, fine,

even, well-defined V-shaped markings that should be warm cream. This belly coloration shall appear to carry over in a band across the rump, but shall be slightly lighter with less distinction in pattern. On the mantle, which is the same even warm cream as the wings, the shaft of these feathers shall be light cream, creating the image of fine, sharp, small stripes running parallel to the mid-line of the body. The legs and nails should be horn colored. The upper mandible should be horn colored, with the lower mandible being a bit lighter. The eves should be bright red.

#### **Grayino:**

The grayino is a uniform soft, pearly gray, not as deep as the Red/Gray coloration. This color shall not approach white, but shall maintain a visible depth of "gray" tone coloration. This color shall extend over the head, wings, tail, and halfway down the breast. The lower breast and belly shall closely approach white with sharp, fine, even, well-defined V-shaped markings that should be pearly gray. This belly coloration shall appear to carry over in a band across the rump, but shall be slightly lighter with less distinction in pattern. On the mantle, which is the same even pearly gray as the wings, the shaft of these feathers shall be near white, creating the image of fine, sharp, small stripes running parallel to the mid-line of the body. The legs and nails should be horn colored. The upper mandible should be horn colored, with the lower mandible being a bit lighter. The eyes should be bright red.

#### Albino:

The albino is solid bright white over all areas of plumage. The legs and nails are horn colored. The upper and lower mandibles are horn colored, with the lower mandible being a bit lighter. The eyes are bright red.

#### **JAPANESE COLOR SERIES**

#### Pearl:

The pearl is a uniform color equal or near that of the Euro Chestnut (Mocca/Brown,) that is, an even coffee brown with a slight gray haze, with darker tone being preferable over lighter tone. This color shall extend evenly over the body where not otherwise noted below. The wings and the top of the head should be pure silver gray to blue silver, ideally approaching the latter. On the neck and halfway down the breast there shall be a series of gray to silver spots. These spots should appear in rows and not coalesce into an ill-defined pattern. The contrast on the neck between the spots and the background color should be high, and the definition of the edges of the spots should be clear. This feature is among the primary points of judging pearl color. In the Japanese Pearl, the lower breast and belly shall be a light cream with little to no scaling, and faulted if showing a sharp scale-like pattern associated with the European Color Series. This belly coloration shall appear to carry over in a band across the rump, but shall be slightly lighter with less distinction in pattern. The legs should be dark gray with dark gray nails. The upper mandible should be dark brown and the lower mandible should be a silvery gray to light gray. The eyes should be dark brown. Pearl cocks will show a significant tendency toward higher contrast between the silver areas and the chestnut areas, whereas the hens will generally show a more muted affect.

#### **Pearl Gray:**

The pearl gray is a uniform color equal or near that of the Euro Chestnut Gray (Mocca/Gray), that is, an even charcoal gray, with darker tone being preferable over lighter tone. The wings and the top of the head should be pure silver gray to blue silver, ideally approaching the latter. On the neck and halfway down the breast there shall be a series of gray to silver spots. These spots should appear in rows and not coalesce into an ill-defined pattern. The contrast on the neck between the spots and the background color should be high, and the definition of the edges of the spots should be clear. In the Japanese Pearl Gray, the lower breast and belly shall be near white with little to no scaling, and faulted if showing a sharp scale-like pattern associated with the European Color Series. This belly coloration shall appear to carry over in a band across the rump, but shall be slightly lighter with less distinction in pattern. The legs should be dark gray with dark gray nails. The upper mandible should be dark brown and the lower mandible should be a silvery gray to light gray. The eyes should be dark brown. Pearl gray cocks will show a significant tendency toward higher contrast between the silver areas and the charcoal gray areas, whereas the hens will generally show a more muted affect.

#### **FRILLED SERIES**

#### **Crested (Bonten):**

The crested shall have a large radiating crest, beginning from a single center point centered above the eyes. This neat rosette pattern shall not be interrupted by feathers in other directions, nor shall there be gaps in the crest. The crest feathers should be long and dense, rising slightly, then drooping forward over the top of the upper mandible, and covering the eyes at least slightly; it shall not be a simple two-dimensional ring. The crest should be as close to a single crest as possible, with stray feathers being faulted slightly, and any additional rosette formations (double crest) being more heavily faulted. The crested may come in any plumage color, as described for its specific color in the color standards.

#### Chest-Frilled (Chiyoda):

The chest-frilled shall have a part, at the level of the chest, which directs the normally downward growing feathers upward towards the neck. This shall create a frontal collar that should extend completely around the front of the bird. The chest frill feathers should be long and dense, and shall not radiate outward in a spiral pattern, but rather extend in a uniform upsweep. This shall form a well-defined, uniform line marking the junction of normal feathers and upswept feathers. This mutation is often correlated to truncated wings with primaries of near equal length, and with a shorter tail. This is permissible, but ideally the bird will display normal primaries and a lengthy tail. In addition, this mutation tends to decrease the size of the bird and this should be taken into account in judging. The chest-frilled may come in any plumage color, as described for its specific color in the color standards.

#### Neck-Frilled (Tachi-Eri):

The neck-frilled shall have a part, on the back of the neck, which directs the normally downward growing feathers of the head/neck area upwards towards the top of the head. This shall create a collar that shall extend a full one hundred and eighty degrees around the back of the neck, while not extending into the chest. The neck frill feathers should be long and

dense, and shall form a clean part, without creating a any kind of spiral pattern. The neckfrilled may come in any plumage color, as described for its specific color in the color standards.

#### Neck-Frilled / Crested (Chuunagon or Tachi-Eri Bonten):

This variety is the combination of traits as described for the neck-frilled and the crested varieties, though it may be present in two indistinguishable genetic forms (chuunagon mutation or tachi-eri + bonten combination). The neck-frilled/crested may come in any plumage color, as described for its specific color in the color standards.

#### Chest-Frilled / Crested (Chiyoda Bonten)

This variety is the combination of traits as described for the chest-frilled and the crested varieties. Note that the decreased size of the body is a common factor in this combination, as carried over by the chest-frilled gene. The chest-frilled/crested may come in any plumage color, as described for its specific color in the color standards.

#### Neck-frilled / Chest-Frilled (Wa-Chiyoda [Tachi-eri/Chiyoda]):

This variety is the combination of traits as described for the neck-frilled and chest-frilled varieties. Note that the decreased size of the body is a common factor in this combination, as carried over by the chest-frilled gene. The neck-frilled/chest-frilled may come in any plumage color, as described for its specific color in the color standards.

#### Crested / Neck-frilled / Chest-frilled (Dainagon):

This variety is the combination of the traits as described for the crested, neck-frilled, and chest-frilled varieties. Note that the decreased size of the body is a common factor in this combination, as carried over by the chest-frilled gene. The crested/neck-frilled/chest-frill may come in any plumage color, as described for its specific color in the color standards.

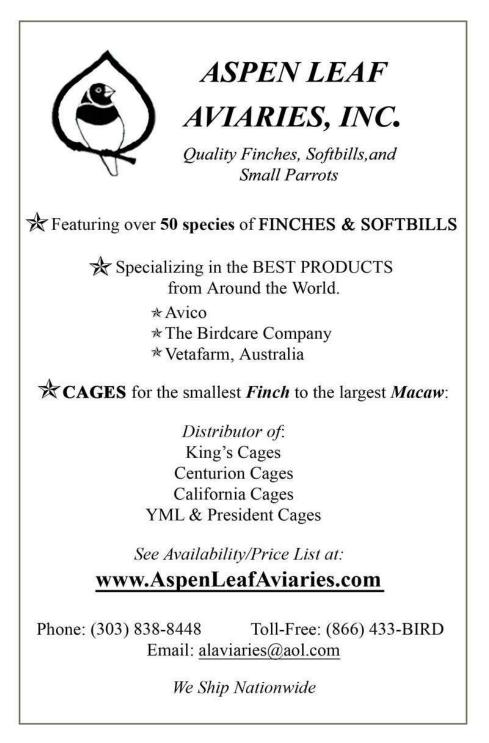
## **DEPORTMENT AND PRESENTATION (10 POINTS)**

#### **Deportment:**

The Society Finch stands confidently on the perch. It is quite calm and steady on the perch. The Society Finch does not "swim" or "roost" on the perch; the judge easily moves the bird with the use of a judging stick. Overly nervous or flighty birds are faulted.

#### Presentation:

A #2 National Finch and Softbill Society standard show cage or any other box type show cage of appropriate size is recommended. The cage is clean and in good repair. There are no distinguishing or identifying marks on the show cage. The perches are securely fastened and of the proper thickness for the bird's feet.



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#### **Executive Secretary**

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Moderator, NFSS Forums Mr. John Wilson San Francisco, CA 94110 jwilson153@aol.com

# 2005 NFSS Panel of Judges

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#### Harold Bowles 230 College Circle Cedartown, GA 30125 Phone: 770-748-4627

<u>Phone</u>: 770-748-4627 Fax: 770-748-3969

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**Conrad Meinert** 1212 E. 300 South Warsaw, IN 46580 <u>Phone</u>: 574-269-2873 <u>Fax</u>: 574-269-3142 BirdmanofWarsaw@ kconline.com

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Patrick Vance

18175 Avilla Lathrup Village, MI 48076 <u>Phone</u>: 248-443-0643 spartanfinchman@cs.com

**Christine Voronovitch** 

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Martha Newman Wigmore NFSS Panel Director 18913 Boston Street NW Elk River, MN 55330 Phone: 763-241-0071 newdlwig@mindspring.com

Paul S. Williams 101 Linden Drive Eufaula, AL 36027 Phone: 334-687-1713 pwilliams@eufaula.rr.com

#### NFSS Affiliated Clubs/Events For more information on affiliating your club with NFSS, Please contact: Darla Dandre, NFSS Affiliated Clubs Liaison PO Box 4092, Joliet, IL 60434 Dbirdranch@aol.com - 815-729-9789 or fill out the 2005 Affiliation Agreement located in the Journal or the NFSS website - http://www.nfss.org/ REGIONAL CLUBS SOUTHEAST BIRD FANCIERS [SOUTHEAST U.S.] DELEGATE Ginny Allen, (334)] 749-7168; gndallen@earthlink.net 1st Sat - March, June, Sept.; 2nd Sat - December, Atlanta Farm Mkt MEETINGS http://members.tripod.com/sebfg/sebf.htm WEBSITE ALABAMA CENTRAL ALABAMA AVICULTURAL SOCIETY Margie Lanier, (334) 567-4073; margielanier@yahoo.com DELEGATE 2<sup>nd</sup> Sunday of month: 2:30 p.m. MEETINGS Montgomery Zoo Education Building: Montgomery, Alabama WEBSITE www.caasociety.com CANADA AMATEURS DOISEAUX CENTRE DU QUEBEC [QUEBEC, CANADA] Jean Beliveau, (450) 564-2520; jeanbeliveau@sympatico.ca DELEGATE 1<sup>st</sup> Sunday of month, WEBSITE www.aocg.org MEETINGS CAGE BIRD SOCIETY OF HAMILTON [HAMILTON, ONTARIO] DELEGATE Peter Webb, (905) 385-4706; PD4PINS@msn.com MEETINGS Last Sunday of month, excluding July and August Valley Park Community Ctr.: 970 Paramount Drive, Stoney Creek CENTRAL ISLAND BIRD CLUB [VANCOUVER ISLAND, BRITISH COLUMBIA] DELEGATE Bridget Malo, (250) 715-1373; bebadbirds@shaw.ca E-MAIL centralislandbirdclub@shaw.ca; CLUB WEBSITE http://www.members.shaw.ca/centralislandbirdclub NFSS MEMBERSHIPS WOULD MAKE A GREAT CHIRISTMAS GIFT! Can you believe the holiday season is already here? What ARE you going to get for that "hard-to-buy-for" or special person in your life? Why not give a gift that will keep on giving -- 365 days a year! A membership to the NFSS is the perfect gift to introduce someone to an exciting and challenging hobby as well as a whole new world of learning. Don't wait until the last minute to get your request in!

Brenda Joslett, Membership Director 7421 Whistlestop Drive Austin, TX 78749

#### **CANADA** (Continued)

#### DURHAM AVICULTURAL SOCIETY [ONTARIO, CANADA]

DELEGATE	Jacquie Blackburn, (416) 282-5997; jacquies.parrots@sympatico.ca
MEETINGS	2 <sup>nd</sup> Tuesday of month: Rotary Park Pavilion, Ajax, Ontario
CLUB WEBSITE	www.birdclub.ca

#### ESSEX-KENT CAGE BIRD SOCIETY [WINDSOR, ONTARIO]

MEETINGS	Monthly: alternating members' homes
DELEGATE	Julianne & Alfred Mion, (519) 948-6398; julianne@mnsi.net
CLUB WEBSITE	www.essexkentcbs.com

#### **CALIFORNIA**

CENTRAL CALIFORNIA AVIAN SOCIETY [Fresno]		
DELEGATE	Gabrial Guillen, (559) 252-2447; el.viejo7@sbc.com	
CLUB E-MAIL	hisbirds@sierratel.com, WEBSITE http://www.ccasbirds.org/	

#### FINCH SOCIETY OF SAN DIEGO COUNTY [San Diego]

DELEGATE Mary Hibner, (858) 549-3705; mary37@yahoo.com

#### **FLORIDA**

#### AVIARY & CAGE BIRD CLUB OF SOUTH FLORIDA [Fort Lauderdale]

DELEGATE Marcia David, (954) 321-9229

 
 MEETINGS
 2<sup>nd</sup> Sunday of month: 2:00 p.m., Flamingo Gardens Gallery, Flamingo Road, Davie, FL (954) 473-2955

 CLUB WEBSITE
 http://www.feathers.org

#### CAGE BIRD CLUB OF CHARLOTTE COUNTY [Port Charlotte]

 DELEGATE
 Godfrey Richardson, (941) 764-8129

 MEETINGS
 3<sup>rd</sup> Thursday of month: Port Charlotte Cultural Center

#### EXOTIC BIRD CLUB OF FLORIDA [Palm Bay]

MEETINGS2<sup>nd</sup> Sunday of month: 1275 Culver Road, Palm BayDELEGATEGinny Heptig, (321) 952-9780; YngAtHrtt@aol.comCLUB WEBSITEhttp://exoticbirdclubofflorida.homestead.com/index.html

#### GREAT AMERICAN BIRD SHOW [G.A.B.S.] [Punta Gorda]

DELEGATE	Miki Sparzak, (410) 687-8915; MJS5295@comcast.net
CLUB E-MAIL	sandhillexotics@aol.com
CLUB WEBSITE	www.greatamericanbirdshow.org

#### SUN COAST AVIAN SOCIETY [Clearwater]

DELEGATE	Joe Ventimiglia, (727) 392-9391
MEETINGS	1 <sup>st</sup> Sunday/month: Leisure World Mobile Home Pk, Clearwater, FL
CLUB E-MAIL	whoward7@tampabay.rr.com
CLUB WEBSITE	www.suncoastaviansociety.org

#### **FLORIDA** (Continued)

#### TREASURE COAST EXOTIC BIRD CLUB [Stuart] DELEGATE Timothy McCormick; donglo57@bellsouth.net CLUB E-MAIL jim.dwyer@netzero.net TRI-STATE AVIAN SOCIETY [Tallahassee] DELEGATE Christine Maples, (850) 562-2800; christine@maplerun.net 2<sup>nd</sup> Saturday of month; Leon County Agriculture Extension Office MEETINGS 615 Paul Russell Road, Tallahassee **ILLINOIS** GREATER CHICAGO CAGE BIRD CLUB [Elmhurst] Robert Wild, (630) 985-4416; r.wild@comcast.com DELEGATE 3<sup>rd</sup> Friday of month: no meeting in November. MEETINGS American Legion Hall: Butterfield Road, Elmhurst. CLUB E-MAIL resident@gccbc.org CLUB WEBSITE www.gccbc.org NATIONAL INSTITUTE OF RED-ORANGE CANARIES and OTHER CAGE BIRDS [NIROC] MEETINGS 1<sup>st</sup> Friday of month, Corner of Bristol & Devonshire, Westchester DELEGATE Steve Hopman (708) 235-0505: Birdhop@aol.com SHOW DATE November 26, 2005 JUDGF **Conrad Meinert** SHOW MANAGER Nancy Serchuk, (847) 437-5704; cserchuk@sbcglobal ILLINI BIRD FANCIERS [Springfield] 4<sup>th</sup> Sunday of each month MEETINGS 1236 N. Oaklane Road #200, Springfield DELEGATE Jodith Wilson, (217) 492-1510; balu6960@sbcglobal.net CLUB WEBSITE illinibirdfanciers@yahoo.com AVICULTURAL SOCIETY OF CHICAGOLAND [TASC] [Downers Grove] 4<sup>th</sup> Fridav of month: Prairieview Elementary School MEETINGS 699 Plainfield Road, Downers Grove DELEGATE Jason Crean, (630) 985-8130; tascchicago@aol.com CLUB E-MAIL tascchicago@aol.com CLUB WEBSITE www.tasc-chicago.org **IOWA** MID-AMERICA CAGE BIRD SOCIETY [Des Moines] 4<sup>th</sup> Sun of month: Des Moines Botanical Ctr, 909 Robert D Ray Dr. MEETINGS DFI FGATE John Thielking, (515) 278-9159; thielking@iowalink.com CLUB WEBSITE www.midamericacagebirdsociety.org

#### **KANSAS**

ZEBRA & SOCIETY FINCH CLUB [Shawnee]

DELEGATE

### MARYLAND

#### BALTIMORE BIRD FANCIERS, INC. [Baltimore]

MEETINGS	Towson Public Library
DELEGATE	Robert Mehl, (210) 581-7955; Robertmehl@verizon.net
CLUB E-MAIL	baltimorebirdfanciers@verizon.net
CLUB WEBSITE	http://www.baltimorebirdfancier.org

Charlie Anchor. 847-515-1090

#### **MICHIGAN**

#### SOCIETY OF CANARY & FINCH BREEDERS [Farmington Hills]

DELEGATE	Patrick Vance, (248) 445-0643; spartanfinchman@cs.com
MEETINGS	3 <sup>rd</sup> Saturday of each month: Farmington Hills
SHOW DATE	December 10, 2005; NFSS REGIONAL SHOW
JUDGE	Conrad Meinert

#### **MISSOURI**

#### GATEWAY PARROT CLUB [High Ridge]

 
 MEETINGS
 3<sup>rd</sup> Sunday of each month: 2:00 p.m., Humane Society of Missouri Pet Training Center Bldg, 1201 Macklind, St. Louis

 DELEGATE
 Christine Kincaid, (636) 343-8097; parrotsx10@aol.com introfish@aol.com CLUB WEBSITE www.gatewayparrotclub.org

#### GREATER KANSAS CITY AVICULTURAL SOCIETY [Kansas City]

DELEGATE	Anthony Day, (816) 255-5068
MEETINGS	2 <sup>nd</sup> Sunday of month: Coronation of Our Lady Church Grandview
CLUB WEBSITE	http://www.gkcas.org

#### **NEW HAMPSHIRE**

#### BIRDS OF A FEATHER AVICULTURAL SOCIETY [Manchester]

 MEETINGS
 2<sup>nd</sup> Monday of month: Villa Crest Retirement Center

 DELEGATE
 Ray Schwartz, (603) 62-6106; Prismsdad@aol.com

 CLUB E-MAIL
 EDITOr@boaf.com
 CLUB WEBSITE
 www.boaf.com

#### **NEW YORK**

EMPIRE FINCH & CANARY CLUB [West Hampstead]	
MEETINGS	1 <sup>st</sup> Thursday of month: 8:00 p.m., Averill Blvd Park, Elmont
DELEGATE	John Lund, (516) 564-4692

#### NEW YORK FINCH & TYPE CANARY CLUB [New York]

MEETINGS	2 <sup>nd</sup> Sunday of month, except July & August
DELEGATE	Stan Kulak, (718) 967-6899; barstand@aaahawk.com
CLUB WEBSITE	www.newyorkfinch.com

#### **NEW YORK** (Continued)

#### ASTORIA BIRD CLUB [Astoria]

 MEETINGS
 3rd Sunday of Month: Bohemian Hall

 2919 24th Ave. Astoria
 2919 24th Ave. Astoria

 DELEGATE
 Robert Gallo, (718) 380-3935; robertgallo@earthlink.net

#### NORTH CAROLINA

#### RALEIGH-DURHAM CAGE BIRD SOCIETY [Raleigh]

 DELEGATE
 April Blazich, (919) 851-8079; aprilb@bellsouth.net

 MEETINGS
 3<sup>rd</sup> Sunday of month: Glen Eden Pilot Park, Glen Eden Dr., Raleigh

 CLUB WEBSITE
 www.rdcbs.org

#### **OREGON**

#### EASTSIDE FINCH CONNECTION [Portland]

DELEGATE Raspberry, (503) 233-4274; <u>raspberry@europa.com</u>

#### PUERTO RICO

#### ASOCIACION DE CRIADORES DE FINCHES DEL ESTE [Cagues]

 MEETINGS
 First Sunday of month

 DELEGATE
 Victor Cordero, (787) 893-7723; denise805@hotmail.com

#### **TENNESSEE**

# MIDDLE TENNESSEE CAGE BIRD CLUB [Nashville] MEETINGS 3<sup>rd</sup> Sunday of month: 1:00 p.m., Donelson Senior Center, Donelson DELEGATE Wilma Crawford, (615) 890-6906; tnma2@comcast.net

#### SOUTHEAST TENNESSEE AVICULTURAL SOCIETY (Niota)

MEETINGS2<sup>nd</sup> Sunday of month: 2 p.m.; Niota Elementary SchoolDELEGATEJanet Burrell, (423) 472-1306; jab2202@aol.com

#### TENNESSEE VALLEY EXOTIC BIRD CLUB [Knoxville]

 DELEGATE
 Lisa Murphy, (423) 263-0483; wlmurphy@usit.net

 MEETINGS
 First Tuesday of month: Church of Good Samaritan

#### **TEXAS**

#### ALAMO EXHIBITION BIRD CLUB INC. [New Braunfels]

 MEETINGS
 4<sup>th</sup> Sunday of month, 3:00 p.m.: Becker CPA Center 8033 Pinebrook, San Antonio

 CLUB WEBSITE
 www.aebc.org

 CLUB INFO.
 (210) 657-0069; tkinsey1@satx.rr.com.

#### FORT WORTH BIRD CLUB [Fort Worth]

MEETINGS2<sup>nd</sup> Sunday of month: Fort Worth Botanical Gardens, Azalea RoomDELEGATEClarence Culwell, (817) 220-5568; COculwell@myfam.com

#### TEXAS (Continued)

	Canary & Finch So	ociety [Houston]	
	MEETINGS	2 <sup>nd</sup> Sunday of month: 2:00 p.m.; Town Place Mall, Pasadena	
	DELEGATE	Alicia Baker, (281) 320-9936; aliciabaker@myway.com	
	CLUB E-MAIL	aliciabaker@myway.com	
	Toxas Bird Broods	ers Association [Temple]	
	DELEGATE	Clarence Culwell; (817) 220-5568; Coculwell@myfam.com	
	MEETINGS	2 <sup>nd</sup> Saturday of month, 12:00 p.m.; 3 <sup>rd</sup> weekend, Feb & August	
	VIRGINIA		
	PENINSULA CAGE	E BIRD SOCIETY, INC. [Hampton]	
	MEETINGS	3 <sup>rd</sup> Sunday, 2:00 p.m.; Thomas Nelson Comm College, Moore Hall	
	DELEGATE	Bea Rogers, (757) 484-6001	
	CLUB E-MAIL	dwilson786@aol.com	
	CLUB WEBSITE	www.vapeninsulacagedbirdsociety.org	
	FALL BIRD MART	Annual Bird Clubs of VA Convention (see web site for information)	
		WASHINGTON	
	CASCADE CANARY BREEDERS ASSOCIATION [Seattle]		
	DELEGATE	Janel C. Johnson, (425) 226-8899; katbird57@aol.com	
	MEETINGS	3 <sup>rd</sup> Sunday of month, 1:00 p.m.	
		Keppler's Feed: 16442 S.E. Renton-Issaquah Road, Renton	
	CLUB WEBSITE	www.cascadecanarybreeders.org	
	SHOW DATE	37th Annual Canary & Finch Show - Nov. 26 & 27, 2005	
	JUDGE	Annette Howard	
	LOCATION	Empire State Fairground, 14405 179th Ave SE, Monroe, WA 98272 Information: Janel C. Johnson; (425) 226-8899; katbird57@aol.com	
	WINGS OVER WASHINGTON [Seattle]		
	DELEGATE Doug White, (425) 870-7298; dwhite3511@msn.com		
WISCONSIN			
	CENTRAL WISCONSIN CAGE & WILD BIRD CONNECTION [Pittsville]		
ļ	MEETINGS	1st Saturday of month: alternating members' homes	
l		Carelyn Baliala (609) 127 6674, agaratar hirdwi@yahaa aga	

MEETINGS	1st Saturday of month: alternating members' homes
DELEGATE	Carolyn Belisle, (608) 427-6674; secretarybirdwi@yahoo.com
CLUB E-MAIL	secretarybirdwi@yahoo.com
CLUB WEBSITE	http://www.cwwcbc.us/bc
CONTACTS	Dave Bluma: DavidBluma@aol.com;
	Marlene Minor: mminor@tds.net

### **EMERALD ISLE AVIARIES**

http://www.internationaldovesociety.com Jim at tielmore@aol.com or spkennel@aol.com 313-247-5900 OR 269-641-7209



European Gold Finch: \$40/ea Pintail Whydah: \$25/ea Orange Weaver (males in color): \$20/ea Orange Weaver (uncolored female): \$5/ea Indian Silverbills: \$16/ea Orange Cheeked Waxbills: \$20/ea Spice Bird: \$8/ea Bronze Wing Mannikins: \$10/ea Gouldian – Normal Males: \$65/ea Gouldian - Yellow Males: \$100/ea Gouldian - Blue Males/Females: \$120/ea Gouldian - Dilute Blue Males: \$130/ea Gouldian - Silver Male/Female: \$150/ea Shaftail (Fawn) Grassfinch: \$40/ea Zebra Finches (from Exhibition Stock): \$15/ea Blue Capped Waxbills: \$80/pr Strawberry Finches: \$80/pr Black Cheeked Waxbills: \$135/pr

Red Rump Parakeet - Cinnamon/Lime: \$75/ea Red Rump Parakeet - Opaline: \$200/ea Red Rump Parakeet - Lutino: \$175/ea Red Rump Parakeet - Pied: \$100ea Red Rump Parakeet - Cinnamon Pied: \$125 ea Red Rump Parakeet - Rubino (Combination of Opaline & Lutino): \$250/ea

Turquisine Parakeet - Normal Male - \$100/ea Turquisine Parakeet - Yellow Male: \$150/ea Scarlet Chested Parakeet - Unsexed: \$125/ea Parrotlet - Green Split to Blue: \$75/ea Parrotlet – Blue: \$125/ea Parrotlet – Yellow: \$200/ea

Mealy Rosellas - Handfed Babies: \$150/ea Forstern Rainbow Lory – Handfed Baby: \$300/when weaned Red bellied parrot (male) was handfed, talks a little, needs a little work to tame down again \$250 Timneh grey (unsexed) tame, talks \$500

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Blue Cap Cordon Bleu	\$ 60
Red Face Crimson Wing	\$ 95
Shafttail, Gray	\$ 65
Shafttail, Fawn	\$75
Star, Red Face	\$ 65
Star, Yellow Face	\$75
Silverbill, Grayhead	\$ 70
Owl or Bicheno	\$ 80
Diamond Firetail	
Fawn Diamond Firetail	
European Goldfinch	
Orange Cheek Waxbill	

Red Ears Waxbill	.\$35
Spice	.\$18
Society, Brown or Fawn	
Zebra, Gray or Fawn	.\$12
Normal Gouldians	.\$95

#### Canaries

o un un oo	
American Singer (male)	
American singer (hen)	\$60
Red Mahogany	\$95
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Yellow Mosaic	
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Raza Espanola	\$95
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#### Prices are subject to change.

We accept major credit cards, money orders and checks. Birds can be Shipped via USPS Express Mail. The cost of this service is \$35 per container of birds. Minimum order of \$100 + shipping charges. Free shipping for orders over \$500.

The Exotic Finch Loft is a bird store located in southwest Ohio, selling finches and canaries exclusively. We have over 500 birds in stock representing 25 species of finch and 10 types of canary.

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	n entitles your organization to receive all NFSS publications and to ileges of the Society. These include, but are not limited to:						
you with oth	<b>nal</b> Our newly formatted bi-monthly publication connects her finch and softbill enthusiasts around the world. It includes preeding, housing, diet, management, products, specific						

 www.nfss.org --- Visit our ever-expanding website for the latest information on NFSS activities, officers, affiliated clubs an their websites, 2004 affiliated shows and events, archives, advertisements and Avicultural links.

species, and experiences of other aviculturists.

- Finchshop --- Looking for an unusual gift? Finchshop is our department store. Items and order forms are available in the NFSS Journal and on the website - www.nfss.org
- Finch Save --- The goal of this restructured member participation group is to establish and maintain all finch and softbill species in American aviculture.
- Census --- The annual NFSS Census can connect you with other breeders for the purpose of exchanging breeding stock.
- Affiliated Shows and Events --- are advertised in the NFSS Journal and on the website.
- NFSS Panel Judges --- are available for shows. Awards with the NFSS Logo--- (plagues and rosettes) are available at new reduced prices.
- Annual Achievement Awards --- are presented at the National Cage Bird Show.

Once we receive your application and fee, we will list your organization among the affiliated clubs in the NFSS Journal and on the NFSS website. Please write, email or phone me for an Affiliation Application and Awards Catalog!

Send your check for \$30.00 made payable to NFSS to:

Darla Dandre NFSS Affiliations & Awards Manager PO Box 4092, Joliet, IL 60434 Phone: 815-729-9789 E-Mail: Dbirdranch@aol.com

## NFSS MEMBER and NON-MEMBER ORDER FORM Split Plastic Band Choices: Red. Dk Green, Lt Green, White, Pink, Black, Purple, Yellow, Orange, Dk Blue, Lt Blue MINIMUM ORDER \$5.00 SPLIT PLASTIC BANDS - \$1.50 PER STRING OF 10 BANDS **INDICATE QUANTITY BELOW AND COLOR** XF XCS XCL XB **X3** SUBTOTAL **NFSS MEMBERS ONLY** Closed traceable aluminum bands available in only the NFSS color of the year. Aluminum bands are engraved with initials NFS, Size Code, Yea & Number. There is no choice of number. All aluminum bands are recorded for permanent reference. Bands are ordered in strings of 10, same size. New members may order before receiving their membership number. Write "New" for an NFSS Member #. Orders are processed weekly as received. Please, no mail requiring signatures. The banding and marking of wild birds is very tightly regulated by the

The banding and marking of wild birds is very tightly regulated by the Federal government. It is illegal to use ANY band on a bird that is released to the wild except a Federal band issued by US Fish and Wildlife.

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If you choose not to include this sum, NFSS will NOT be responsible for replacements.

Under \$50.00 - \$1.30 \$50.00 to \$100.00 - \$2.20

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TOTAL

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NFSS MEMBER #:

ADDRESS:\_\_\_\_\_ CITY/STATE/ZIP:

E-MAIL:

NAME:

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MAIL TO: Paula Hansen, 2234 Juneau Ct. S., Salem, OR 97302

# The National Finch & Softbill Society Guide to Ordering NFSS Closed Leg Bands

- Size A: Gold-breasted Waxbill, Orange-cheeked Waxbill, Owl (Bicheno) Finch, Quail Finch, Red-eared Waxbill, Strawberry Finch, and other small waxbills.
- Size B: Black-cheeked Waxbill, Cordon Bleu, Cuban Melodious Finch, Fire Finch, Olive Finch, Rufous-backed Mannikin, Timor Zebra, Peales Parrot Finch.
- Size C: B&W Mannikin, Violet Eared & Blue-capped Waxbills, Purple Grenadier, Bronze-winged Mannikin, Cherry Finch, Green Singing Finch, Grey Singing Finch, Heck's Shaftail, Lavender Finch, Painted Finch, Pileated Finch, Pytilias, Red-headed & Forbes (Blue-breasted) Parrot Finches, Shaftail Finch, Silverbills, Star Finch, Red Siskin, Society (Bengalese) Finch.
- Size D: Blue-faced Parrot Finch, Lady Gouldian Finch, Chestnut-breasted & most smaller mannikins, most other Parrot finches, Pictorella Finch, Pintailed Nonpareil, most Twinspots, Yellow-rumped Finch, Standard Zebra Finch.
- Size E: Black-crested Finch, Diamond sparrow, European Greenfinch, Golden Song Sparrow, Nuns, Peter's Twinspot, Siskins, Spice Finch, European Goldfinch, European Zebra.
- Size G: Magpie Mannikin, Siberian Goldfinch, most larger mannikins, small tanagers.
- Size J: Pekin Robin, Silver-eared Mesias, most small softbills.
- Size K: Java Rice Birds, Red-crested Cardinal, Saffron Finch, Shama Thrush
- Size L: Diamond Dove, Mousebirds, other small doves, quail, softbills.
- Size M: Leaf Birds, Pagoda Mynah, large Sunbirds, Superb Starlings.
- Size R: Green/Purple Starlings.
- Size S: Indian Hill Mynah, Java Mynah, Ring-necked Dove, Toucanettes, Whitetailed Jay.
- Size T: Small Hornbills, Plush-capped Jay, small Toucans, small Touracos.

Banding instructions are included with each order.

# **Guide to Ordering Open Plastic Leg Bands**

- Size XF: Cordon Bleu, Fire, Orange-Cheeked, Red-Eared, Lavender, Blue Capped Waxbills, Owl, Cherry, Green & Grey Singers, Painted, Hecks & Masked Grassfinch, Gouldian, Most Parrot Finches, Zebra, Bengalese (Society), Stars.
- Size XCS: Nuns, Cutthroats, Diamond Firetails (Diamond Sparrows), most Twinspots, Siskins, (Canaries - Gloster, Fife, Miniature & Fancy).
- Size XCL: Red Faced Pytilia, Pekin Robin, (Canaries Roller, Borders, Lizard, Norwich, Yorkshire, Red Factor).
- Size XB: Indian Shama, Diamond Dove, Chinese Painted (Button) Quail, Budgies, Grass Parakeets.
- Size X3: Lovebirds, Rosellas, Many Softbills.

# **CLASSIFIED ADS**

CLASSIFIED RATES: \$4.00/Issue (Up to four lines of text). Free Classifieds to NFSS Finch/Softbill Save Program Members. All ads are also posted on the NFSS website (www.nfss.org) at no extra charge. Contact Bob French, 90 Myrtle Ave #215, Whitman, MA 02382, (phone) (781) 630-3334, email: bobfrenchnfss@gmail.com

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FOR SALE: Star Finches (yellow faced, normals and pieds), Shafttails (normals and fawns), Diamond Firetails, Lady Gouldians, show Societies (chocolate, fawns and whites) all NFSS banded. Taking orders for Spring hatch. Will ship. E-mail: studioone@cox-internet.com Darrin Hill, Species captain, Star and Shafttail finch, Finch and Softbill Save, NFSS.

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FOR SALE: Owl Finches - \$55.00 each, Masked Grassfinches - \$75.00 each, Chestnut-breasted Mannikins -\$75.00. Airline shipping available (weather permitting), I do not ship USPS. Harry Bryant, Elyria, Ohio Email: utuweb@aol.com

FOR SALE: Baby Black-cheeked Zebra's for sale \$15.00 & reg. \$10. small time breeder, may have to put order in! WI area # 608-212-8933 Peggy

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