

AGASSCOMNEWS



Agapornis Show Standards Center of Ornithology Management News Bulletin

Main article:

Learn more about
Partial Lutinism

For breeders and enthusiasts:

Learn how to
become a member
of AGASSCOM

In this Special debut Issue:

The creation of AGASSCOM
and World Agapornis
Confederation - WAC

And also:

Sex-linked mutations
in Agapornis roseicollis



With Updated, Scientific and World Information
on the Universe of Lovebird Breeding and Shows



Welcome to our Special debut issue of AGASSCOM NEWS!

We are excited and happy to announce the birth of our Agapornis Show Standards Center of Ornithology Management and our trademark WORLD AGAPORNIS CONFEDERATION - WAC.



WAC is the symbol of our mission to reinstate the "old philosophy" of fraternal competition with technical and scientific know-how for shows and Lovebird breeding.

Its logo is a call to Lovebird enthusiasts around the world to bring together clubs, federations, confederations, breeders and hobbyists alike to participate in a fascinating common work based on the experience of top breeders, judges and authors.

We are an enterprise that was conceived to educate and graduate breeders and judges so they can gain access to the very best and updated information on mutations, genetics, show standards, nomenclatures and much more, while respecting and showing appreciation for each country's regional rules.

We of AGASSCOM - WAC offer you 4 member categories for mutual help. By becoming a member, you support us so that we can further our work and help you keep updated and informed on standards, new mutations, organizing shows, judging activities and everything we can do regarding the Lovebirds culture anywhere in the world.

We can do even more for you! We also offer you the unique opportunity to become an International Judge of Lovebirds through our Eagle Eyes School for Ornithology Judges in a 2 to 4 year graduation program.



DF Violet Blue, SF Violet D Blue, DF Violet D Blue

We are a three-in-one enterprise conceived to better assist you! [Join us!](#)

AGASSCOM NEWS is an online periodical publication published by AGASSCOM – WAC, WORLD AGAPORNIS CONFEDERATION with its main office located at Rua Marechal Deodoro da Fonseca, 493, Jundiaí - São Paulo state / Brazil – Cep: 13201-002, internationally designated by the AGASSCOM - WAC acronym, a privately owned company coordinated by Dr. Alessandro D'Angieri, author and editor of this publication. Graphic design by Robert Rajabally. English versions by R. Rajabally and A. D'Angieri. All rights reserved. ISBN: 978-85-94338-01-3. Please note: This is a subscription-distributed publication and therefore cannot be transmitted by any other digital or printed means without prior express permission from the publisher. For membership, enrolment or advertising information, please drop us a line at: info@agasscom.org.



We are here to assist you, whether you are a club, federation, sister confederation, judge, Lovebird expert, enthusiast or breeder, both in technical and scientific matters for the best experience in handling Lovebirds.



roseicollis SF Violet D Blue

We are internationally-oriented and intend to reach out wherever reliable scientific data for Lovebird breeding and show standards are required. We are physically located in Brazil where we also offer legal assistance to both breeders and entities according to IBAMA's (Brazilian Institute of Environment and Renewable Natural Resources) legislation as well as those from other local authorities.

As from now, you can count on AGASSCOM – WAC for all your needs regarding updated information on the wonderful universe of Lovebird breeding and shows.

In Brazil, we're the only organization that meets current IBAMA legislations for clubs and affiliated breeders to purchase bird rings of the exotic standard in accordance with IBAMA's own normative instructions with each breeder's CTF ID.

With WAC you will enjoy an indexed publication with unique articles on Lovebirds regarding their development aside from promoting news on exhibitions and competitions that are included in the world's circuit and standards. Ours is an entity that is dedicated to the development of Lovebirds in Brazil uniting both ethics and science with a financial interest based solely on sustainability. AGASSCOM - WAC came into being from the need breeders had to have access to reliable information and to be kept abreast of technical and legal information, supporting their activities in our country.

Breeders and affiliated entities can now count on the latest news and publications from the world of Lovebirds simultaneously released in Brazil and abroad, aside from opportunities to attend online talks and events, shows and enjoy the freedom to submit their articles for publication in our AGASSCOM NEWS, the first news informative specialized on Lovebirds that counts on one of the most renowned international judges as its editor and reviser. All this, plus the possibility to participate in the first international school for judges ever created in our country, the Eagle Eyes School for Ornithology Judges (further information on the school and an enrollment form can be found at AGASSCOM's official international website: www.agasscom.org).

That being said, we once again wish to welcome you to the world circuit of breeders and entities. Lear more about this initiative and its benefits at our main website and become a member of AGASSCOM, signifying your support towards this pioneer and exciting initiative!

PARTIAL LUTINISM: THE PARGREENS AND PARBLUES AND PARTIAL PSITACOFULVIN AGAPORNIS

Author: Dr. Alessandro D'Angieri

Abstract: In psittaciformes, the color of feathers is given by two basic pigments, psittacofulvine and melanin, therefore the phenomenon of "albinism" does not exist in its classic form and cannot be referred to as such in Lovebirds, i.e., the absence of melanin producing an "alba" or white bird. The absence of melanin in psittaciformes is called "lutinism" and produces a yellow bird due to the presence of psittacofulvine. The albino phenotype in Lovebirds is a combination of two mutations: lutinism and a structural phenomenon of the color blue in feathers as well as all its partial and allele mutations. In this article, we shall discuss the existing mutations of these two phenomena in the Agapornis roseicollis species.

The "names" parblue and pargreen are the short form for partial green and partial blue colors, that means the amount of "green" and "blue" are not 100%, they are partial colors.

Let's remember the color green is given by the presence of melanin, psittacin and "blue structure of feathers".

When we change melanin concentrations it leads to a more "yellow" color: from the mistys up to the lutinos (total absence, 0% of melanin).

Lutinism is the correct word to be used as there are other pigments than melanin in the birds. So the remaining color is the one of the reminiscent pigment, the psittacofulvine in this case.



Lutino roseicollis



Pallid green roseicollis

The denomination "albinism" must be used only for mammals and other species in which only melanin is present and, therefore, its absence leads to a white individual (albino).

When we change psittacin concentration it leads to a more "blue" color the aquas till reach the blue (total absence of psittacin or psittacofulvine).

A few years ago we've seen the new "yellow face" in fischer lovebirds in Florida in Felix Dell Valle Aviaries and all around the term "parblue" has been suggested by Roland Duboc and accepted in USA. Later, breeders adopted the name "turquoise" in Europe.

This is the concept of a partial mutation that means we have a modified concentration of a

certain pigment that is not present in full 100% but only partially.

We can say that any variation of pigment concentrations between 1% and 99% are a partial mutation!

This was first published by D'Angieri in ALBS magazine in the article "Roseicollis Ino Factors Australian Allele" (Agapornis World - Dec.1987 - Ca.USA)

describing the partial lutinism of the "pallids" that are nothing but partial lutinos.

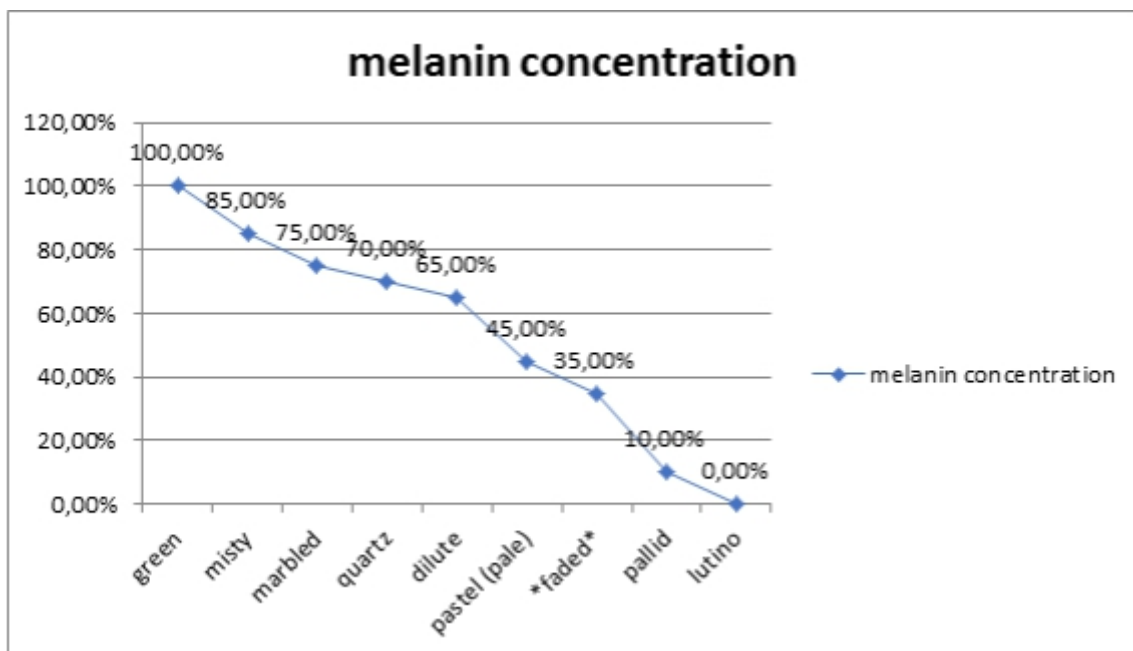
Now recently another sex-linked partial ino mutation has appeared in Greece instead of using the name "pastel" that has been adopted for partial ino mutations, they have named it "pale" for an unknown logical reason. It also appeared as *faded* in Italy, a case of non sex-linked partial melanic or dilution.

We generally use "background" coloration as reference so we have partial blues, partial inos and partial greens!

Yes, partial green is any individual with a decreased concentration of melanin from 1% to 99%.



Dilute aqua



More visible between 10 % and 70% less melanins.

The lesser the melanin concentration the more yellow, the higher melanin concentration the greener. Why 70%? For the simple reason that if it were higher it would become "yellow", with redder eyes, therefore closer to lutinos and thus shall be called "partial inos".

Dilution is another phenomenon but lutinism that decreases melanin and alters its concentration and distribution in feather medulla.



SF Misty aqua and SF Misty green roseicollis

The higher melanin concentration the greener the bird so “partial green”.

The Misty factor in lovebirds is indeed a “poor beauty” in my opinion. Misty roseicollis appeared for the first time in Bodo Ochs aviaries in the 1980s and still continues with difficulty among some breeders and since they are not very attractive, they can be easily mistaken for “bad greens”.

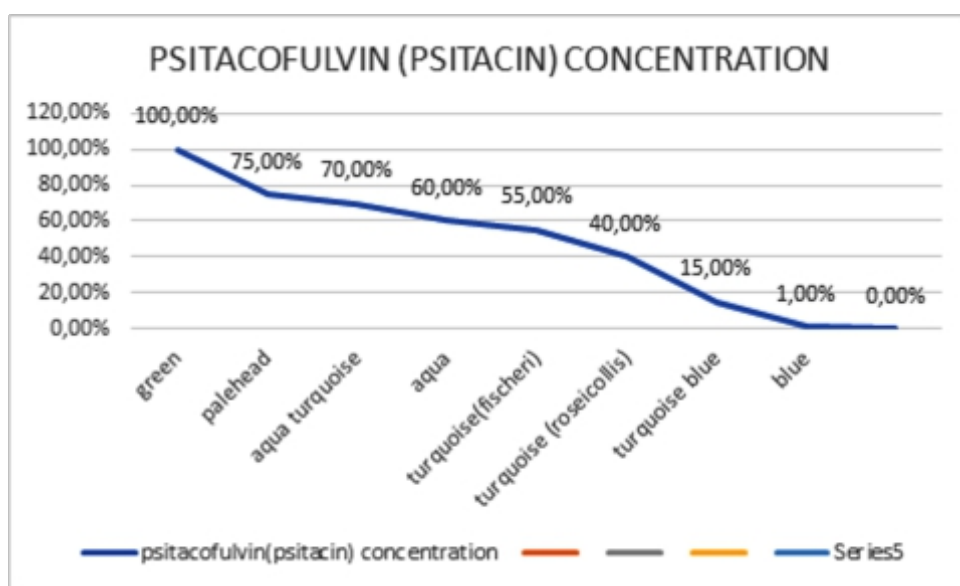
They are generally of intermediate dominance meaning that birds of 1 factor are generally “bad greens” in color and 2 factor birds that may be fairer in a some combinations especially in the ringed-eye group. So it is indeed an intermediate dominance or incomplete dominant factor.

Misty peachfaceds are not very visible, so we have in tarantas, in black cheeks and fischers in which there is a better phenotype that show us a netted feather structure and brownish appearance, with clearer feathers in their tails.

The eye-ringed mistys are the most visible and do show a kind structural netted effect although it is just a melanin reduction.

Fischer mistys are quite popular although its true pattern maybe questionable if it is really a misty factor because there are too many differences. Indeed Fischer’s Misty Factor was first discovered by Henry Bens.

Anyway, it is quite probable if we look around to find out “bad greens and blues” among common birds we can trace something different. But pay close attention, they could be mistys!



When I visited the Middle East I saw that blue roseicollis were the most widespread color bloodline, please note that I write blue and not *blue*, just because there is no reason to keep on

debating if they are true or not true blues just because eventually some marks of psittacin do appear. There are so many reasons involved for that concurrency that the least probable is not as to the existence of a “untrue blue” but just because other factors are involved. Nowadays it is quite evident that blue roseicollis are indeed a true mutation and they were isolated among turquoises and not selected from them!

Here I mentioned also cases of partial melanism to draw attention to the fact that feather structure and melanin concentration are different in the different *Agapornis* species so we cannot expect that the blue in roseicollis to be equal to the blue in personatus or fischers.

We have reached perfection in blues in roseicollis and the birds in Middle East are the proof of that, so many combinations, so many degrees of melanin concentration due to several mutations involved and I saw no traces of psittacin in most of them, even in elder birds in a clear evidence that the presence of “yellow traces” is not given by the “blue factor” but just for the other involved factors that “add” again some psittacin. Hormonal changes in elder that could be the cause.



Pale roseicollis



From left to right: SF violet D opaline Quartz, *faded* green and Pale Headed Green roseicollis

In this manner, we can conclude that all changes in pigments concentrations have been proved so far to be inherited and the known mutations follow a degree of either melanin or psittacofulvin absence and so they all are a case of either partial Lutinism (albinism) or a partial blue structural color phenomenon.

Photo credits:

Pale roseicollis by Panagiotis Vrnas | *faded* green by Florian Gouze - Breeder Mirian Bisiachi

All other photographs by Dr. Alessandro D'Angieri.

SEX-LINKED MUTATIONS in Agapornis roseicollis

Author: Dr. Pedro Generino da Silva Junior - Veterinary doctor

Abstract: In birds, the sexual chromosome that defines the sex of the individual, contrary to what occurs in mammals, is found in females. This model was first encountered in a gender of insects known as Abraxas and respectively named "Z" and "W", corresponding to the X and Y in mammals, therefore, every time we refer to a ZW, we mean a female, while when we say ZZ, we mean a male.

The Agapornis roseicollis have "sex-linked mutations", in other words, they are located in their sexual chromosomes represented by the letters "Z" and "W".

Opalino, ino, pale (Australian cinnamon), cinnamon (American) and pale, and consequently their dozens of combinations: creminos, lutinos, albinos, lacewings and so forth are all sex-linked mutations in roseicollis.

The schematic representation of sexual chromosome systems in birds is that females are heterogametic (ZW) and males are homogametic (ZZ). Therefore, females are the ones that determine the sex of offspring. Males contribute only with the "Z" chromosome, while females with "Z" and "W".

In this manner, sex-linked mutation genes are located in chromosome "Z". Therefore, the information required for the mutation to be visible in the loci of "Z" chromosomes. At this time of writing, there is no known information for mutations in chromosome "W".



Orange faced lutino



Albino chick roseicollis

In order to obtain males from a sex-linked mutation, the mutant gene will be present in both "Z" chromosomes while in females a single existing "Z" chromosome is sufficient.

One must pay attention here that for a sex-linked mutation to manifest in a male phenotype ("ZZ") it must be present in both sexual chromosomes, while in females ("ZW") only a single gene is possible in the single existing "Z" chromosome.

Why is it so that in males the mutation must be present in both "Z" chromosomes in order to be visible? The answer is simple: in roseicollis, sex-linked genes are recessive with regard to their wild or "original" color.

Therefore, if a sex-linked mutation is only present in one of the chromosomes, the original color will predominate over these and the sex-linked phenotype does not show, i.e., in order for the sex-linked phenotype to manifest and be clearly visible, it must be present as a double factor (homozygosis) in males.

This already occurs in crossbreeding where we have auto-sexing chicks, meaning that we can easily know the sex of chicks when they are born with no margin left for error.

Let's take a look now at some examples of crossbreeding in sex-linked mutations. As an example, let's take the Abraxas system as the rules dictate, when the heterogametic chromosome is located in females.



Aqua ino turquoise

Crossbreeding 01

Opaline male ("Z°Z°") x opaline female ("Z°W")

Explanation: Both parents carry the mutation, therefore all offspring will be opalinos.

Crossbreeding 02

Opaline male ("Z°Z°") x non-opaline female ("ZW")

Explanation: Note that, contrary to the preceding case, the female's "Z" chromosome does not contain the information of a sex-linked mutation and, since we know that females determine the sex of their chicks, we will not have any opaline males ("ZW") and therefore all females ("Z°W") will be opaline.

Crossbreeding 03

Non-opaline male ("Z°Z°") x opaline female ("Z°W")

Explanation: in this case, being an opaline, only the female carries information for a sex-linked mutation and so we'll have all opaline carrying males ("Z°Z°") and all females as non-opalines ("ZW").

Crossbreeding 04

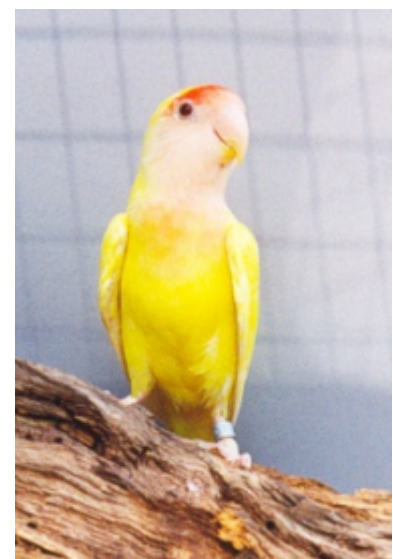
Opaline carrying male ("Z°Z°") x opaline female ("Z°W").

Explanation: in this case we'll have 50% opaline females ("Z°W"), 50% non-opaline females ("ZW"), 50% of the males will be opaline carriers ("Z°Z°") and 50% of the males will be opaline carriers ("Z°Z°").

Crossbreeding 05

Opaline carrying male ("Z°Z°") x non-opaline female ("ZW")

Explanation: in this case we'll have 50% opaline females ("Z°W"), 50% non-opaline females ("ZW"), 50% of the males will be opaline carriers ("Z°Z°") and 50% of the males will be non-opaline carriers ("ZZ").



Pale headed lutino

The examples given above are valid for all sex-linked mutations and only the symbols need to be replaced, so we need to pay careful attention to the mutations that our birds carry and only purchase birds from reputable breeders, striving to learn as much as we can of their ascendancy in order to handle their breeding appropriately to meet our goal which is to always



own a bird that really exhibits the most original phenotype possible.

Bibliography: D'Angieri, Alessandro = Encyclopedia of Agapornis - Publisher: Create Editora - 2007



AGASSCOM has partnered with Anilhas Capri and together make available to associated breeders the only bird rings in the exotic standard bearing the breeder's CTF registration number and manufactured in anodized aluminum.

Anilhas Capri is the only Brazilian manufacturer licensed by IBAMA and authorised to manufacture bird rings. AGASSCOM - WAC international and Capri rings mean double legality!

Joins us and order your bird rings! Please note that the exotic standard is available only for Brazil, while other special standards are available upon request.



This is your new source of updated, scientific and international information on the wonderful world of Lovebirds!

Here you will find authoritative discussions on Lovebird Show Standards, breeding mutations, courses for judges and legal information for your hobby or club members.

Consider subscribing today to support this initiative and enjoy the unique content provided by Dr. Alessandro D'Angieri of AGASSCOM - WAC and other guest contributors, experts and Lovebird enthusiasts!

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