## The White-winged Powder Blue Mutation of the Crimson (Pennant's) Rosella

## Part I

Editor's Note: The authors wish to remain anonymous so sent the article through editor Dale Thompson. If there are any questions regarding either Part I or Part II, they should be directed to Dale Thompson at the AFA Home Office address.

Since 1970 when the blue mutation of the Pennant's Rosella first appeared in West Germany, many changes have developed. The first breedings of this mutation resulted in a color change where the normal crimson red color on the chest, head and back was replaced with a silver, white coloration. As with any mutation, through selective breeding over several generations this mutation improved in size and color. An April/ May 1981 *AFA Watchbird* article explains the genetic probabilities of this blue mutation.

In 1979, Josef Dexler, a West German aviculturalist, acquired four pairs of the blue mutation Pennants. Each pair consisted of one blue bird and one split-to-blue mate. In his first breeding season with these birds, Herr Dexler successfully reproduced offspring from all four pairs. This provided him with a good source of birds for future line breeding. Through a careful selection process, Herr Dexler's second generation breeding resulted in producing some female offspring which contained a blue colored back that replaced the silver, white coloration found in earlier generations.

These blue-backed females were subsequently bred to split-to-blue mates. This combination produced a powder blue color which occurred in 12.5% of the time in either male or female birds.

Although Herr Dexler normally prefers to breed his mutations with a split bird to ensure greater size, in 1986 he opted to breed a powder blue male with a powder blue mate. The following year this pair produced an all powder blue bird which had white wing feathers. In addition, two other pairs of powder blue females mated to split-to-blue males produced several offspring that were split-to-blue Pennant's Rosellas (normal red coloration) but also had white wing feathers. In 1988 three more powder blue white-winged Pennant's Rosellas were bred from two pairs of Josef Dexler's birds.

With each generation, the powder blue coloration on the back and chest, and the white primary wing feathers became more prominent. In addition, small white patches appeared on the head and rump areas. Only future breedings of this powder blue, white-winged mutation will determine the genetic probabilities and characteristics of this mutation.

In addition to the blue Pennant's Rosella mutation there are the yellow and white mutations. The yellow mutation is a recessive mutation, the same as the blue mutation.

## Part II

## Genetics of the White-winged Blue Pennant's Rosella

The powder blue and white wing characters in Pennant's Rosellas are very interesting to say the least. The red Pennant's split to powder blue which have green in their mature plumage probably are also split to





This six month old Pennant's Rosella is a powder blue mutation but lacks the white wing feathers.



This photo shows the white primary wing feathers of the White-winged Powder Blue Pennant's Rosella. The blue coloration of its body is much more intense than the standard blue mutation. The white spot on the top of its head is clearly seen.



This pair of Pennant's Rosellas shows a contrast of color. The male on top of the nest box is a silver blue Pennant and its mate is split to the blue mutation. She visually is the color of a normal Pennant's Rosella found in the wild.

white-wing.

An excellent mating would be the nant's. This should produce good Pennant's which are red-green split strong birds. The following are to powder blue and white-wing with expected results of such a cross.

the powder blue, white-wing Pen-

If we assume:

RR or Rr = red WW or Ww = normal wing color

and

rr = powder blue ww = white-wing

Then the following would be expected:

Parents:

Hen Х Cock RrWw rrww red-green/powder blue/white-wing powder blue and white-wing (red-green double split to powder blue and white-wing)

Gametes (eggs and sperm) and progeny would be:

(from hen) rw (from male)

RW	RrWw	l/4 = red-green double split to powder blue and white-wing
Rw	Rrww	l/4 = red-green split to powder blue with white-wings
rW	rrWw	1/4 = powder blue split to white-wing
rw	rrww	$1/4$ = powder blue with white-wings $\bullet$