**INDIA BLUE PIED**

Soon after or possibly at the same time the White peafowl appeared, so did another pattern of peafowl. A colored bird lacking pigment in some areas of its body characterizes the pied pattern. The birds with larger portions of their bodies white are more desirable to most people.

The pied color pattern gene is an allele of the white gene and is also incomplete dominant in its inheritance To illustrate this," T" will represent the white gene and "P" will represent the pied gene. Putting these alleles together, "TP" will represent a pied bird, in this case Blue lndia pied. Mating two Blue pied birds together the following offspring will be produced:

|  |  |  |
| --- | --- | --- |
|  | T | P |
| T | TT | TP |
| P | TP | PP |

The phenotype of these offspring is 1/4 white, 1/2 blue pieds,1/4 dark pied. The one­ fourth of the chicks that are "PP" are blue looking but because pied is incompletely dominant, eventhese birds will show some white feathers. These white feathers will usually be on the false wings or flight feather and possibly on the throat of the bird.

Mating the White offspring of this mating back to the parent Pied bird, the following results will take place:

|  |  |  |
| --- | --- | --- |
|  | T | P |
| T | TT | TP |
| T | TT | TP |

ln this mating,1/2 the offspring will be white and 1/2 pied.

Taking the Dark pied offspring of the first pied mating "PP" and mating those birds with the original Pied parent birds, the following results will occur:

|  |  |  |
| --- | --- | --- |
|  | T | P |
| P | TP | PP |
| P | TP | PP |

With this mating, 1/2 of the offspring would be pied and 1/2 would be dark pied.

One more mating is needed to show ail that can happen when working with Pied birds. Again, let's go back to the first mating. ln this example, the White offspring "TT" would be mated to the Dark pied offspring "PP". When this is done, the following offspring will be produced:

|  |  |  |
| --- | --- | --- |
|  | P | P |
| T | TP | TP |
| T | TP | TP |

With this mating, ail the offspring will be lndia blue pied.

These exemples could be greatly oversimplified in that when breeding lndia blue pieds together, a gradation of color and white is seen. Sorne birds express more white than the parent birds while others are darker than their parents. lt may be that a grouping of genes are working together to obtain this pattern. If this were the case, this kind of inheritance would be referred to as multiple gene or multiple factor inheritance.

To illustrate multiple gene inheritance, some assumptions have to be made. Assume there could be eight genes working together to make up the pied pattern as is known today. Again, using "T" for white factor and "P" for pied factor, a bird heterozygous could be "TTTTPPPP", a common looking lndia blue pied bird. Further expanding this thought, the following may be what is happening when producing lndia blue pied birds:

PPPPPPPP Pure Blue

TPPPPPPP Dark Pied

TTPPPPPP lntermediate patterns (darker in color) TTTPPPPP lntermediate patterns (darker in color) TTTTPPPP Common looking lndia blue pied TTTTTPPP lntermediate patterns (whiter in color) TTTTTTPP lntermediate patterns (whiter in color) TTTTTTTP White bird carrying the pied factor TTTTTTTT Pure White

This is only an exemple of what could be happening with the inheritance of the pied pattern in peafowl. lt is, however, the only way that I can explain the variation in the amount of white and dark in different lndia blue pied birds.