

# CHICKEN BREEDS OF INDIA

*Miri*



*RK Vijn  
TC Roy  
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**National Bureau of  
Animal Genetic Resources**

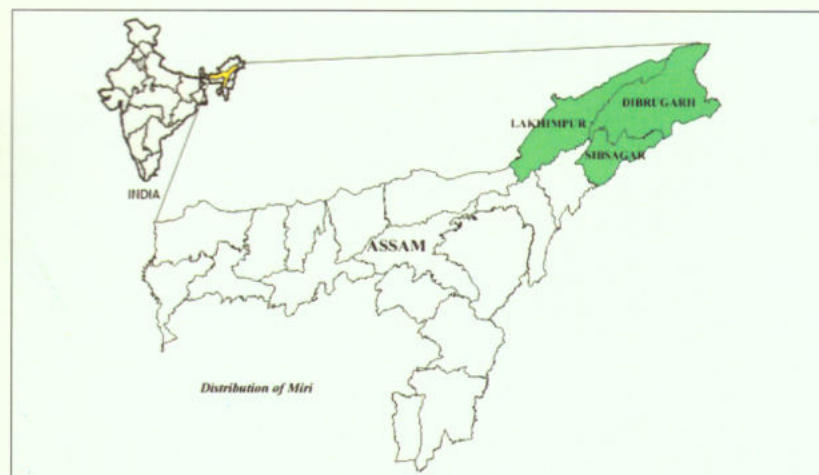


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The name of the breed is derived after the name of the tribe rearing them (Miri or Mising). The local name of the birds in the area is 'Porog'. The birds are scavenging type and require very little input for their survival and reproduction. The birds play an important role in the daily life of the tribe and are integral part of their social, religious and cultural activity. Almost all the tribal people rear these birds. These birds are used primarily for meat and egg purposes. The meat of these birds is considered a delicacy and is the major component of the animal protein. There is no commercial poultry in the region as this area is flood hit and remains under 2-3 feet deep water for 4-5 months in a year. There is very little information on these birds and hence the survey was undertaken under the NATP project to characterize these birds. The population of Miri birds is sufficiently large and has no demographic threat.

### Distribution

The breeding tract is distributed 93-45 to 95-30 degree E and 26.45 to 28 degree N covering an area of approximately



27000 Square Kilometers. These birds are found in Dhimaji, North Lakhimpur, Sibsagar and adjoining districts of Dibrugarh and Majhuali island in Upper Assam.

### Flock Size and Composition

The average flock size was 25.2 birds per household having 11 male and 14 female birds. The percentage of Miri birds varied from 90-95 percent in the flock.

## Management Practices

The villages of Mising community are located on the banks of Brahmaputra and its tributaries, and in the largest fresh water island of Majhuli. Most of the houses are made of bamboos with thatched roof. The floor



is raised about five feet from the ground level. The birds are reared as a backyard farming and are looked after by the female members of the family. The birds are provided housing only during night in the form of cages made up of cane and bamboo. These cages are kept



inside the house. The birds remain free from Sunrise to Sunset. During laying period the hens are kept in cages with paddy straw bedding called "Pekang". Generally the hen lays about 15-25 eggs in a laying

cycle and then becomes broody to hatch out chicks. The hen looks after the chicks for about a month and then prepares again for another cycle of laying eggs. The mortality is around 11% during the first four weeks. No specific feed is supplied to the birds and the birds scavenge in the surroundings. No vaccination, deworming and other health care measures are followed by the tribals.

## Morphological Characteristics

The Miri birds have no standard plumage colour and majority of the birds are white followed by brown and black. Some mixed colored birds are also available. The most common pattern is



solid but few spotted and striped patterns are also found. The skin colour is white to yellow. The shank color is white or yellow. The ear lobes are mostly red. The comb is single and red in color. Brown eye is most common among the birds.



The birds are reared mostly for meat as well as eggs. The tribals use these birds invariably in their social and religious rituals. The dressing percentage ranges from 65-74 percent. The overall averages of different body cuts viz; neck, wings, back, breast, drumstick, thigh, heart, gizzard and liver were 6.4, 11.6, 21, 21.5, 14.9, 16.0, 0.7, 4.9 and 2.9 percent respectively. The back and breast cuts were the greatest contributors to the dressed weight (42.5%).

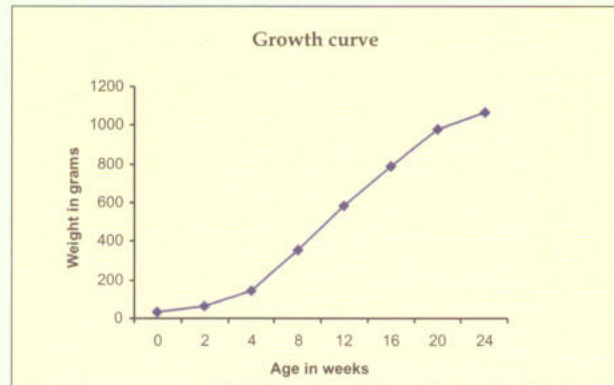
### Performance

| Parameter                        | Average     |
|----------------------------------|-------------|
| Average weight at 6 months (kg)  | 1.06±0.049  |
| Average weight at 12 months (kg) | 1.525±0.048 |
| Age at first egg (days)          | 212         |
| Clutch size (days)               | 4 – 5       |
| Average egg production per year  | 62          |
| Hatchability % (total egg basis) | 79          |
| Mortality up to one month (%)    | 10 – 15     |

### Egg Characteristics

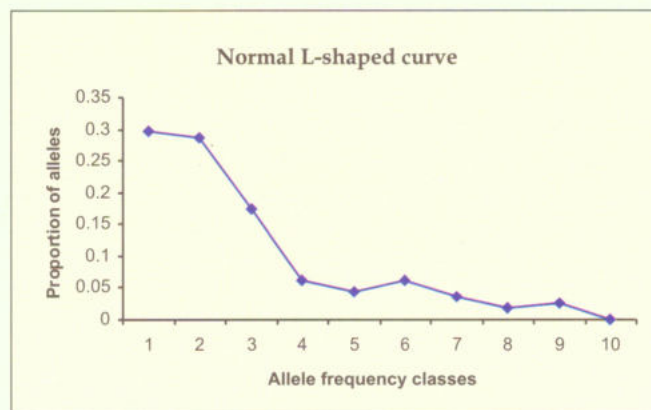
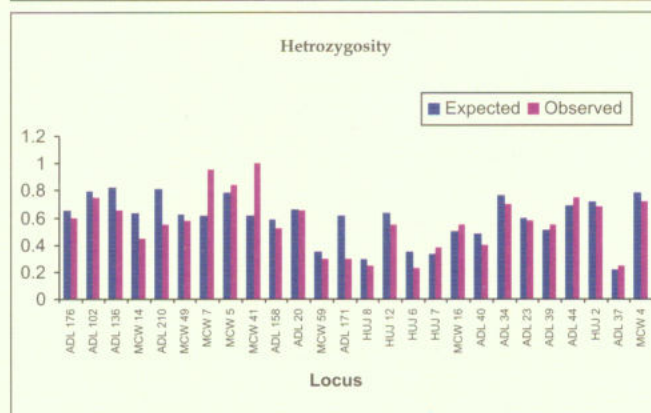
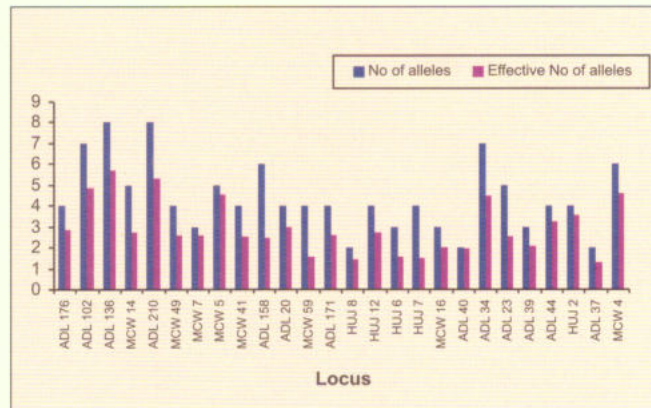
| Parameter                      | Frequency/Average |    |
|--------------------------------|-------------------|----|
| Shell colour<br>(in % of eggs) | light brown       | 62 |
|                                | brown             | 37 |
|                                | dark brown        | 1  |
| Egg wt (g)                     | 42.06±0.17        |    |
| Shell wt (g)                   | 5.14±0.06         |    |
| Albumin wt (g)                 | 21.64±0.12        |    |
| Yolk Wt. (g)                   | 15.35±0.08        |    |

|                      |                           |    |
|----------------------|---------------------------|----|
| Shell thickness (mm) | 0.30±0.001                |    |
| Albumin consistency  | thick                     |    |
| Yolk index           | 0.445±0.002               |    |
| Albumin index        | 0.102±0.007               |    |
| Haugh units          | 81.64±0.32                |    |
| Egg                  | yolk                      | 36 |
| Composition (%)      | albumin                   | 51 |
|                      | shell and shell membranes | 13 |



### Genetic Architecture

Microsatellite loci were used for generating the data for inferring population genetic parameters. The average No of alleles and average effective No of alleles are 4.24 and 2.93 respectively. High number of alleles signify allelic richness. The average expected and observed heterozygosity are 0.59 and 0.57, respectively, which is quite high and does not point towards a loss of variability due to various forces acting on the populations and creating



a population structure. The exact test probabilities for each population have revealed 24 loci are not in Hardy-Weinberg Proportions at 95% level of confidence. The mode shift qualitative test was also employed to assess recent genetic bottleneck. The normal L-shaped curve revealed that the population has not experienced any genetic bottleneck in the last few generations.