

429/D

Reconstruction of stature from fragmented skeletal remains of a prehistoric population in Bellan-bandi Palassa in Sabaragamuwa Province

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The stature is influenced by genetic and environmental factors such as climate, food and nutrition. Many genes are involved in the control of body size and form. In a single individual, height increases until adulthood is reached, and decreases as senility approaches.

Sri Lanka has evidence of pre-historic settlements possibly 500,000 BP or earlier. The first anatomically modern man termed 'Balangoda Man' lived during the pre-historic period. We have reconstructed the stature by studying the long bone fragments excavated from Bellan-bandi Palassa pre-historic site. Since complete long bones were not available in skeletal remains we were unable to use the regression formulae used to calculate stature from long bones described by Trotter & Gleser (1952). We have adopted the method described by Krogman (1962) to estimate the stature from fragmented long bones. First the total length of the bone was estimated and secondly this length was used in statural formulae. Trotter & Gleser (1952) formulae were applied for the estimation of stature from calculated lengths of long bones.

The reconstructed mean stature of the prehistoric man in Bellan-bandi Palassa is 140.05 cm (\pm 4.21 SD). This value is less than the mean stature of present population (164.19 cm) living in Sri Lanka. This result is consistent with gradual increase of body size from pre-historic to the present. The reconstructed mean height being less than present day population also cast doubts on the report of Kennedy (1993) that this group found in Bellan-bandi Palassa was larger in size than present day Sri Lankans.

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