



Conservation Genetics

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Since the scientific knowledge and technology have been expeditiously developed, the molecular genetics are becoming widely used for conservation in many aspects. Molecular genetic studies are a very useful tool for wild animal conservation as they provide individual genetic information and contribute to other areas such as estimate population size, bottlenecks, sex-specific gene flow, founder contributions, kinship and relatedness and also allow inference of the historical and geographical relationships between groups. This creates valuable tools for policy makers in order to make decisions regarding ecological conservation.

Recently, elephant and wild animal are decreased. Habitat loss and fragmentation is one of the factors that drive the population down. Genetic management can help to manage the long-term population management. Not only helping to prevent inbreeding, genetic information also helps to increase the diversity in the environment. Molecular genetic analysis can easily obtain by using both invasive and non-invasive samples.

Many aspects of molecular genetic analysis have been used with elephants. The main purpose has been to identify individuals and relatedness which can adapt to create breeding strategy and prevent inbreeding problem.

Moreover, this genetic information is also widely adapted to study behaviour and social organization, population structure, genetic diversity and also help in the study of the phylogeny which could adapt to manage the conservation programme and even general management. Recently this knowledge is becoming commonly to use as an identification tool to aid in the control of the illegal trade of wild elephant to prevent wild elephant population declining.

