resemble each other, and DNA evidence shows that offspring from one family were fathered by males from another family. Sifting carefully through the babble, examining all the available evidence, and following the rules, Norm succeeds in solving a puzzle that dates back nearly a century.

Key Words.– taxonomy, Maluti River Frog, Phofung River Frog, Drakensberg, *Amietia, Strongylopus*

Complex spatial genetic patterns and extensive secondary contact in the Spotted Sand Lizard (*Pedioplanis lineoocellata*)

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Abstract.– The Spotted Sand Lizard, *Pedioplanis lineoocellata*, is widespread across much of southern African found primarily in open habitats. Recent work uncovered four mitochondrial DNA clades which were previously unknown. The formation of these clades is thought to be linked to the Plio-Pleistocene glacial cycles. Furthermore, two of the most geographically widespread clades occur sympatrically in the Loeriesfontein region which has raised questions of possible hybridisation. To investigate gene flow between the latter two clades, samples were profiled at nine microsatellite markers and genetic patterns assessed using estimates of divergence and migration, and a discriminant analysis of principle components. While measures of genetic differentiation and the proportion of recent migrates at each population supports greater gene flow over a few 10s of kilometres and far less over 100s of kilometres, there was no isolation-by-distance pattern. This suggests that gene flow is influenced by barriers or environmental resistance to gene flow. Microsatellite genetic clusters did not match mitochondrial clades which was interpreted as evidence of recent gene flow between the two clades. Hybridisation at Loeriesfontein could not be detected because mitochondrial clades were not genetically distinct in terms of microsatellite loci investigated. Mitochondrial lineages may occur sympatrically at places other than Loeriesfontein but were not sampled by chance because of small sample sizes in the previous study. The regions of overlap between mitochondrial clades may be more extensive than previously thought. Further clarity regarding the formation of clusters awaits more comprehensive sampling.

Key Words.– Pedioplanis lineoocellata, microsatellite, mitochondrial DNA, gene flow, isolation-by-distance, hybridisation