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Bioinformatics gone Wild!

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The National Zoological Gardens of South Africa (NZG) has a strong research component focused on conservation of Wildlife. This is achieved via the Research and Scientific Services Department. In keeping with the times, and considering ongoing advances in newer research technologies, the NZG has moved toward greater implementation of aspects such as Next Generation Sequencing and the Bioinformatics analysis thereof in its research. As such our research currently includes (a) small genome and organelle sequencing assembly and annotation (b) microsatellite development from NGS data (c) microbiome analysis, as well as (d) genotyping by sequencing, all in a wildlife context. While the organization has acquired access to some resources for the analysis of these large datasets, there is certainly a requirement for access to additional resources capable of handling even larger datasets as well as multiple datasets simultaneously. Via a partnership with the CHPC the NZG is therefore currently in the process of optimizing and implementing workflows which address their big data analysis needs. The presentation aims to outline the research activities of the various groups within NZG, in the NGS-Bioinformatics context, along with the resource requirements that the CHPC would supply, in order to ensure the successful implementation of this exciting partnership.

HPC content

Contained in Abstract

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