DESIGNING OF SPECIFIC PRIMERS FOR IDENTIFICATION OF ENDANGERED SPECIES: THICK-TAILED PANGOLIN (*Manis crassicaudata*) AND PURPLE-FACED LANGUR (*Trachypithecus vetulus*)

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Thick-tailed pangolin (*Manis crassicaudata*) (TTP) and Purple-faced langurs (*Trachypithecus vetulus*) (PFL) are endangered and strictly conserved mammalian species in Sri Lanka. Due to the expansion of the human population and their ignorance on biodiversity, destruction of natural habitats and illegal slaughtering of such species continue in the country. Lack of genetic information on such species has restricted the control measures to protect them from slaughter. Any identification tool through seized meat is legal assistance to wildlife conservation. Therefore, the present study was aimed to design the specific primers for the identification of both species. The extracted DNA from seized meat samples was amplified using universal primers, and DNA was sequenced. Subsequently, the resulting sequences were identified at the species level using the Basic Local Alignment Search Tool available in the National Centre for Biotechnology Information, Sri Lanka. Two primer pairs were designed for TTP while a specific pair was identified for PEL. The primer length of the forward (FP) and reverse (RP) of both primers designed for TTP were 22 and 21 bases, respectively. The amplicon length was 276 bases for primer pair 01 while 278 bases for primer pair 02. Similarly, FR and RP, designed for PFL were 20 bases while the amplicon length was 209 bases. The identified technique could be applied to identify both species when slaughtered illegally. It could also enhance the monitoring and enforcement of laws intended to protect these endangered species.

Keywords: DNA, *Manis crassicaudata*, Primer, *Trachypithecus vetulus*