Abundance and genetic diversity of forest ungulates in Central African rainforest

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The forest ungulates such as duikers are widely distributed across Western and Central Africa. We estimated distribution of forest ungulates and developed genetic markers. We collected fresh fecal samples of forest ungulates in 13 transects in different vegetation types (primary, secondary, swamp, and mountain forest) in Moukalaba, Gabon. We conducted species identification of fecal samples using control region of mitochondrial DNA. We found at least 4 duiker species (blue, yellow backed, bay, and Ogilby's or Peter's duiker) and water chevrotain. Blue duikers were more abundant than the other species in all vegetation types. The abundance of each ungulate was different among vegetation types. Next, nine microsatellite markers were developed by next-generation sequencing using a muscle tissue sample of a blue duiker. The nine markers are highly polymorphic and therefore appropriate for individual identification. These markers were also amplified in other duikers. Those markers are useful for landscape genetics of duikers in Moukalaba.