**DNA Isolation methodology**

At first, fresh sample was washed with DEPC (Diethyl Pyrocarbonate) treated milliQ water and dissected under aseptic conditions by an expert hand. 1 gm of muscle tissue was ground in liquid nitrogen and kept at 65℃ for an hour after the addition of 1 ml of extraction buffer (100 mM Tris-Cl, 25 mM EDTA, 1.5M NaCl, 2% SDS, 0.2 % β-marcaptoethanol, 10 µl proteinase K). The samples were allowed to cool and then an equal volume of 1M ammonium acetate was added and centrifuged at 5000 x g for 5 min. An equal volume of Chloroform:IAA (24:1) was added to the collected aqueous phase and centrifuged at 5000 x g for 10 min. Half volume of 5M NaCl and three volumes of 95% ethanol was added to the aqueous phase and kept at -20℃ for 1 hr. The samples were again centrifuged at 5000 x g for 10 min and the supernatant was discarded. Then nuclease free water was added to dissolve the pellet and 10 units of RNase A was added and incubated at 37℃ for 30 min. Finally 3 volumes of 100% ethanol was added with 1 volume 3M NaCl and centrifuged at 12000 x g for 10 min. The pellet was collected and dissolved in nuclease free water and stored at -80℃.

**Library preparation:**

For Illumina sequencing, Pair end library with an insert size of around 300bp was constructed using NEB NebNext Ultra II DNA kit. At first, 1 µg High MW DNA was fragmented using NEB dsDNA Fragmentase according to manufacturer protocol. Then DNA fragments were purified using AmpureXP magnetic beads (Beckman), resuspended in water. Resulting DNA was end repaired, A-tailed and ligated to adaptors with NEB NEBNext® Ultra™ II DNA Library Prep Kit for sequencing. Libraries were amplified for 10 cycles using NEB dual indexing primers. Resulting libraries were QC and quantified using qPCR (quantitative polymerase chain reaction) with universal illumina primers, and pooled for sequencing. Sequencing was performed on Illumina HiSeq 4000 with Pair End 2x151 SBS kit that includes TruSeq sequencing primers. Primer and adapter sequences are available from the manufacturer. PacBio sequencing platform was used to improve the data quality for the assembly and scaffolding processes. Genomic DNA was sequenced by Illumina HiSeq 4000 and Pacific Bioscience Sequel, single molecule, real time (SMRT, Single Molecule Real Time) sequencing platforms. The quality of the reads were checked using FastQC.