DNA Extraction method – Protocol for DNA extraction from filter papers modified from Brolaski et al., (2008).

**Lysis solution 1** – 0.12M guanidine thiocyanate, 0.181 M trisodium phosphate

**Lysis solution 2** – 5 M sodium chloride, 0.5 M Tris base, 4% SDS

**Precipitation solution** – 5 M ammonium acetate, 0.12 M alluminium ammonium sulphate dodecahydrate

**Binding solution** – 5 M guanidine HCl, 0.03 M Tris HCl, 9% isoproponol

**Wash solution** – 0.01 M Tris HCl, 0.5 M sodium Chloride, 75% ethanol

**Elution Buffer** – 1X TE buffer (1:10)

1. 1g 30mesh garnet beads, 1g fine sand into 7ml tube
2. Add filter paper
3. 925 μl Lysis solution 1 and 75 μl Lysis solution 2
4. Qiagen Tissue lyser 5 minutes, 30 bps
5. Centrifuge 4000g, 1min
6. Pipette off supernatant into clean 2ml tube
7. Add 250 μl Precipitation solution, vortex
8. Chill on ice for 5 mins
9. Centrifuge 10000g, 1min
10. Pipette off supernatant into clean 2ml tube
11. Add x1.5 volume of Binding solution, vortex
12. Pipette 650 μl into spin column, centrifuge 10000g, 1 min, discard flow through
13. Repeat step 12 until all solution has gone through spin column
14. Add 500 μl of Wash solution, centrifuge 10000g, 1 min, discard flow through
15. Centrifuge spin column 10000g, 2 min
16. Place spin column in fresh collection tube
17. Add 100 μl of Elution buffer (TE, ddH2O) leave for 5 minutes
18. Centrifuge 10000g, 1 min.