**DNA Extraction using PowerWater (Qiagen) and Glass Fiber Filters**

NB: This is a modified protocol for use with larger glass fiber filters that otherwise soak up too much buffer and leave minimal supernatant.

**Materials** (per sample):

1 Bead tube

5 Collection tubes

1 Spin filter

Solutions PW-PW6

15mm centrifuge

Microcentrifuge

Hotplate or incubator

Vortexer

Micropipettors and tips

**Procedure**

**1)** Warm PW1 and PW3 at 56 degrees C in hotplate or incubator until precipitates dissolve totally clear

**2)** Add **1.5mL PW1** to **bead tube**

**3)** Secure bead tube to vortexer and agitate at maximum speed for **10 minutes**

**4)** Centrifuge bead tubes at **4000 x g** for **2 minutes**

**5)** Transfer all supernatant to a **collection tube**

**6)** Centrifuge at **13,000 x g** for **1 minute**

**7)** Transfer supernatant to **new collection tube**

**8)** Add **200uL** of **PW2**

 - Vortex to mix

**9)** Incubate at **4°C** for **5 minutes**

**10)** Centrifuge at **13,000 x g** for **1 minute**

**11)** Transfer supernatant to **new collection tube**

**12)** Add **650uL** of **PW3**

 - Vortex to mix

**13)** Load **650uL** of **mixture** onto a **spin filter**

**14)** Centrifuge at **13,000 x g** for **1 minute**

**15)** **Discard** flow through

**16)** **Repeat** 13-15 until all of the mixture has been filtered

**17)** Place the **spin filter** into a **new collection tube**

**18)** Shake **PW4** to mix it

**19)** Add **650 uL** of **PW4**

**20)** Centrifuge at **13,000 x g** for **1 minute**

**21)** **Discard** flow through

**22)** Add **650uL** of **PW5**

**23)** Centrifuge at **13,000 x g** for **1 minute**

**24) Discard** flow through

**25)** Centrifuge at **13,000 x g** for **2 minutes**

**26)** Place **spin filter** into a **new collection tube**

**27)** Add **100uL** of **PW6** to the filter membrane

**28)** Centrifuge at **13,000 x g** for **1 minute**

**29) Discard filter** and retain flow-through = purified extracted DNA