Supplementary document

(a) **(b)**

Figure S1. (**a**) The geographical view of the raised semi-degraded peat located in County Laois; (b) The geographical view of the cutaway peatland located in County Offaly.

Preparation of culture media

1) **Nutrient agar**
   Formula:
   Bacteriological agar 15 g/L
   Peptone 5 g/L
   Meat extract 3 g/L

23 g of the nutrient agar medium was dissolved in 1000 ml of deionized water and brought up to the boiling. The resulting medium was sterilized by autoclaving at 120°C for 15 min.

2) **Tryptic soy agar (TSA)**
   Formula:
   Bacteriological agar 15 g/L
   Sodium chloride 5 g/L
   Soy peptone 5 g/L
   Tryptic digest of casein 15 g/L

40 g of the TSA medium was dissolved in 1000 ml of deionized water and brought up to the boiling. The resulting medium was sterilized by autoclaving at 120°C for 15 min.

3) **Starch Casein agar (SCA)**

10.0g of starch, 2.0g of K_2HPO_4, 2.0g of KNO_3, 0.3g of casein, 0.05g of $MgSO_4.7H_2O$, 0.02g of $CaCO_3$, 0.01g of $FeSO_4.7H_2O$ and 15.0g of bacteriological agar were dissolved in 1000ml of deionized water and brought up to the boiling. The resulting medium was sterilized by autoclaving at 120°C for 15 min.

4) Pikovskaya medium

0.5g of yeast extract, 5.0g of $Ca_3(PO4)_2$, 0.5g of $(NH_4)_2(SO4)$, 0.2g of KCl, 0.1g of $MgSO_4$, 0.0001g of $MnSO_4$, 0.0001g of $FeSO_4$ and 15.0g of bacteriological agar were dissolved in 950ml of deionized water and brought up to the boiling. The resulting medium was sterilized by autoclaving at 120°C for 15 min. 10.0g of dextrose was dissolved in 50ml of deionized water, the solution was filter sterilized (to avoid the sugar caramelization) and added to the autoclaved medium.

5) Czapek Dox agar (half-strength)

17.50g of Czapek-Dox medium and 15.0g of bacteriological agar were dissolved in 1000 ml of deionized water and brought up to the boiling. The resulting medium was sterilized by autoclaving at 120°C for 15 min.

6) Anaerobic agar

51.0g of anaerobic agar medium was dissolved in 1000ml of deionized water and brought up to the boiling. The resulting medium was sterilized by autoclaving at 120°C for 15 min.