

**Table S1. Information of samples with mitogenomes sequenced in this study**

| Family    | Subfamily     | Species                       | Specimen acc. | Locality              | Longitude/latitude     | Collection time |
|-----------|---------------|-------------------------------|---------------|-----------------------|------------------------|-----------------|
| Crambidae | Spilomelinae  | <i>Syllepte taiwanalis</i>    | 2020HNXY0152  | Xinyang, Henan, China | 114°03'59"E/31°49'14"N | Jul. 2020       |
|           |               | <i>Botyodes principalis</i>   | 2020HNLS0093  | Lushan, Henan, China  | 112°30'56"E/33°41'00"N | Aug. 2020       |
|           |               | <i>Sinomphisa plagialis</i>   | 2020HNXY0137  | Xinyang, Henan, China | 114°03'59"E/31°49'14"N | Jul. 2020       |
| Pyralidae | Epipaschiinae | <i>Orthaga euadrusalis</i>    | 2020HNLS0063  | Lushan, Henan, China  | 112°31'20"E/33°44'19"N | Aug. 2020       |
|           |               | <i>Endotricha olivacealis</i> | 2019HNXY0003  | Xinyang, Henan, China | 114°03'59"E/31°49'14"N | Jul. 2019       |
|           | Pyralinae     | <i>Orybina regalis</i>        | 2020HNLS00092 | Lushan, Henan, China  | 112°30'56"E/33°41'00"N | Aug. 2020       |
|           | Phycitinae    | <i>Dioryctria rubella</i>     | 2020HNXY0123  | Xinyang, Henan, China | 114°03'59"E/31°49'14"N | Jul. 2020       |
|           |               | <i>Dusungwua basinigra</i>    | 2020HNXY0122  | Xinyang, Henan, China | 114°03'59"E/31°49'14"N | Jul. 2020       |
|           |               | <i>Acrobasis inouei</i>       | 2020HNXY0139  | Xinyang, Henan, China | 114°03'59"E/31°49'14"N | Jul. 2020       |