



Figure S1. The complete plastome circle diagram of *Amanita hejiaqingii*.

Table S1. Morphological data of *Amana anhuiensis*, *A. hejiaqingii* and *A. tianmuensis*

Collect Number	Species	Position of the widest part of lower leaf (top:0; upper:1)	Number of white veins on lower leaf	Bract Length	Bract Width	Shape of bract (linear:0; lanceolate:1)	Colour of flowers (white:0, pink:1)	Outer tepal length	Outer tepal width	Inner tepal length	Inner tepal width	Colour of Anther (yellow:0, light- purple:1)	Location
WMZ1711- 1	<i>Amana</i> <i>hejiaqingii</i>	1	1	2.9	0.1	0	1	3.1	0.7	2.8	0.75	0	Tayuan Temple, Tongbai County, Nanyang City, Henan Province
WMZ1711- 2	<i>Amana</i> <i>hejiaqingii</i>	1	1	3.1	0.1	0	1	4.4	0.8	3.9	0.8	0	Tayuan Temple, Tongbai County, Nanyang City, Henan Province
WMZ1711- 3	<i>Amana</i> <i>hejiaqingii</i>	1	1	3.2	0.1	0	1	3.9	0.8	3.5	0.9	0	Tayuan Temple, Tongbai County, Nanyang City, Henan Province
WMZ1712- 1	<i>Amana</i> <i>hejiaqingii</i>	1	1	1.8	0.1	0	1	3.3	0.8	3.3	0.9	0	Huang-jia-lao-zhuang, Tongbai County, Nanyang City, Henan Province
WMZ1712- 2	<i>Amana</i> <i>hejiaqingii</i>	0	1	2.3	0.1	0	1	3.9	0.8	3.6	1	0	Huang-jia-lao-zhuang, Tongbai County, Nanyang City, Henan Province
WMZ1712- 3	<i>Amana</i> <i>hejiaqingii</i>	1	1	2.2	0.2	0	1	3	1	2.8	1	0	Huang-jia-lao-zhuang, Tongbai County, Nanyang City, Henan Province
WMZ1712- 4	<i>Amana</i> <i>hejiaqingii</i>	0	1	1.6	0.1	0	1	3	0.7	2.9	0.8	0	Huang-jia-lao-zhuang, Tongbai County, Nanyang City, Henan Province
WMZ1714- 1	<i>Amana</i> <i>hejiaqingii</i>	1	1	1.9	0.1	0	1	4.2	1.1	3.8	0.9	0	Hei-long-tan Waterfall, Shihe District, Xinyang City, Henan Provincec

WMZ1714-2	<i>Amana hejiaqingii</i>	0	1	2.2	0.1	0	1	3.5	0.7	3.3	0.8	0	Hei-long-tan Waterfall, Shihe District, Xinyang City, Henan Provincec
WMZ1716-1	<i>Amana hejiaqingii</i>	1	1	1.8	0.1	0	1	3.6	0.6	3.4	0.7	0	San-tan Scenic Area, Suizhou City, Hubei Province
WMZ1716-2	<i>Amana hejiaqingii</i>	0	1	2.6	0.1	0	1	4.2	0.8	3.9	0.9	0	San-tan Scenic Area, Suizhou City, Hubei Province
WMZ1716-3	<i>Amana hejiaqingii</i>	1	1	2.1	0.1	0	1	3.7	0.7	3.6	0.8	0	San-tan Scenic Area, Suizhou City, Hubei Province
WMZ1716-4	<i>Amana hejiaqingii</i>	0	1	0.9	0.1	0	1	3.1	0.6	3.1	0.6	0	San-tan Scenic Area, Suizhou City, Hubei Province
WMZ1716-5	<i>Amana hejiaqingii</i>	1	1	1.5	0.1	0	1	3.2	0.7	3	0.8	0	San-tan Scenic Area, Suizhou City, Hubei Province
WMZ1718-1	<i>Amana hejiaqingii</i>	1	1	2.3	0.2	0	1	4	0.8	3.8	1	0	Hei-long-tan Scenic Area, Suizhou City, Hubei Province
WMZ1718-2	<i>Amana hejiaqingii</i>	0	1	2	0.1	0	1	3.2	0.8	3.1	0.8	0	Hei-long-tan Scenic Area, Suizhou City, Hubei Province
WMZ1718-3	<i>Amana hejiaqingii</i>	1	1	2	0.2	0	1	4	1	3.9	1	0	Hei-long-tan Scenic Area, Suizhou City, Hubei Province
WMZ1718-4	<i>Amana hejiaqingii</i>	1	1	2	0.2	0	1	3.9	0.7	3.5	0.7	0	Hei-long-tan Scenic Area, Suizhou City, Hubei Province
WMZ1718-5	<i>Amana hejiaqingii</i>	1	1	1.8	0.1	0	1	3.2	0.6	3.1	0.6	0	Hei-long-tan Scenic Area, Suizhou City, Hubei Province
WMZ1722-1	<i>Amana hejiaqingii</i>	1	1	3.3	0.1	0	1	3	0.7	3	0.8	0	Li-luo-cheng, Shangcheng County, Xinyang City, Henan Province
WMZ1722-2	<i>Amana hejiaqingii</i>	0	1	3.1	0.1	0	1	3.1	0.6	3	0.7	0	Li-luo-cheng, Shangcheng County, Xinyang City, Henan Province

WMZ1722-3	<i>Amana hejiaqingii</i>	1	1	3	0.1	0	1	2.8	0.7	2.7	0.8	0	Li-luo-cheng, Shangcheng County, Xinyang City, Henan Province
WMZ1480-1	<i>Amana anhuiensis</i>	0	3	3.8	0.4	1	1	3.2	0.7	2.8	0.7	1	Mt. Tianzhu, Qianshan City, Anqing City, Anhui Province
WMZ1480-2	<i>Amana anhuiensis</i>	0	5	3	0.5	1	1	3.3	0.8	3.4	0.9	1	Mt. Tianzhu, Qianshan City, Anqing City, Anhui Province
WMZ1499	<i>Amana anhuiensis</i>	0	3	2.9	0.4	1	1	3.2	0.7	2.7	0.8	1	Zhenru Temple, Mt. Yunju, Yongxiu County, Jiujiang City, Jiangxi Province
CMQ16215-1	<i>Amana anhuiensis</i>	0	3	4	0.6	1	1	4.3	0.9	4.25	1.15	1	Mt. Tianzhu, Qianshan City, Anqing City, Anhui Province
CMQ16215-2	<i>Amana anhuiensis</i>	0	3	3.1	0.53	1	1	3.15	0.75	2.95	0.8	1	Mt. Tianzhu, Qianshan City, Anqing City, Anhui Province
CMQ16215-3	<i>Amana anhuiensis</i>	0	3	3.1	0.6	1	1	2.95	0.73	2.8	0.8	1	Mt. Tianzhu, Qianshan City, Anqing City, Anhui Province
CMQ16215-4	<i>Amana anhuiensis</i>	0	3	3.75	0.6	1	1	3.9	0.9	3.75	0.95	1	Mt. Tianzhu, Qianshan City, Anqing City, Anhui Province
WMZ1465	<i>Amana tianmuensis</i>	1	0	2.7	0.1	0	0	2.1	0.6	1.8	0.6	0	MT.Tianmu, Lin'an District, Hangzhou City, Zhejiang Province
WMZ1470-1	<i>Amana tianmuensis</i>	0	1	1	0.1	0	0	2.1	0.4	2.2	0.6	0	Yuxiang Village, Xinming Town, Huangshan District, Huangshan City, Anhui Province
WMZ1470-2	<i>Amana tianmuensis</i>	0	1	0.6	0.1	0	0	2	0.4	1.8	0.5	0	Yuxiang Village, Xinming Town, Huangshan District, Huangshan City, Anhui Province
WMZ1472	<i>Amana tianmuensis</i>	1	0	2	0.1	0	0	2.5	0.6	2.9	0.7	0	Yuan-lin-chang, Gencheng Town, Huangshan Districe, Huangshan City, Anhui Province
WMZ1473	<i>Amana</i>	1	1	2.4	0.1	0	0	2.7	0.6	2.6	0.7	0	Mt. Jiuhua, Qingyang County, Chizhou City,

												Anhui Province
<i>tianmuensis</i>												
WMZ1502-	<i>Amana</i>											Qing-liang-feng Botanical Garden, Lin'an District, Hangzhou City, Zhejiang Province
1	<i>tianmuensis</i>	1	0	2.3	0.05	0	0	2.4	0.4	2.5	0.4	0
WMZ1502-	<i>Amana</i>											Qing-liang-feng Botanical Garden, Lin'an District, Hangzhou City, Zhejiang Province
2	<i>tianmuensis</i>	0	1	2.2	0.05	0	0	2.5	0.4	2.2	0.5	0
WMZ1502-	<i>Amana</i>											Qing-liang-feng Botanical Garden, Lin'an District, Hangzhou City, Zhejiang Province
3	<i>tianmuensis</i>	1	0	2.2	0.05	0	0	2.5	0.5	2.2	0.5	0
WMZ1504-	<i>Amana</i>											MT.Tianmu, Lin'an District, Hangzhou City, Zhejiang Province
1	<i>tianmuensis</i>	1	0	2.6	0.1	0	0	2.5	0.5	2.3	0.6	0
WMZ1504-	<i>Amana</i>											MT.Tianmu, Lin'an District, Hangzhou City, Zhejiang Province
2	<i>tianmuensis</i>	1	1	3.1	0.3	0	0	2.5	0.6	2.3	0.5	0
WMZ1504-	<i>Amana</i>											MT.Tianmu, Lin'an District, Hangzhou City, Zhejiang Province
3	<i>tianmuensis</i>	0	1	2.5	0.1	0	0	2.1	0.5	1.8	0.5	0
WMZ1505-	<i>Amana</i>											Zhe-xi-tian-chi, Lin'an District, Hangzhou City, Zhejiang Province
1	<i>tianmuensis</i>	1	1	2.1	0.1	0	0	3.1	0.6	2.9	0.7	0
WMZ1505-	<i>Amana</i>											Zhe-xi-tian-chi, Lin'an District, Hangzhou City, Zhejiang Province
2	<i>tianmuensis</i>	1	0	2.4	0.1	0	0	2.5	0.4	2.4	0.5	0
WMZ1505-	<i>Amana</i>											Zhe-xi-tian-chi, Lin'an District, Hangzhou City, Zhejiang Province
3	<i>tianmuensis</i>	1	0	2.9	0.1	0	0	2.4	0.5	2.3	0.7	0
WMZ1505-	<i>Amana</i>											Zhe-xi-tian-chi, Lin'an District, Hangzhou City, Zhejiang Province
4	<i>tianmuensis</i>	1	0	2.9	0.1	0	0	2.9	0.5	2.7	0.6	0
WMZ1505-	<i>Amana</i>											Zhe-xi-tian-chi, Lin'an District, Hangzhou City, Zhejiang Province
5	<i>tianmuensis</i>	1	1	2.2	0.1	0	0	2.7	0.5	2.6	0.6	0
CMQ16198-	<i>Amana</i>											Lao-dian, Mt.Tianmu, Lin'an District, Hangzhou City, Zhejiang Province
1	<i>tianmuensis</i>	1	0	2.8	0.26	0	0	1.95	0.6	1.8	0.55	0
CMQ16198-	<i>Amana</i>	1	0	2.8	0.2	0	0	2.2	0.6	2.15	0.55	0
												Lao-dian, Mt.Tianmu, Lin'an District,

2	<i>tianmuensis</i>												Hangzhou City, Zhejiang Province
CMQ16198-3	<i>Amanita tianmuensis</i>	1	0	3	0.25	0	0	2.2	0.6	1.9	0.5	0	Lao-dian, Mt.Tianmu, Lin'an District, Hangzhou City, Zhejiang Province
CMQ16198-4	<i>Amanita tianmuensis</i>	1	0	3.4	0.3	0	0	2.5	0.6	2.25	0.65	0	Lao-dian, Mt.Tianmu, Lin'an District, Hangzhou City, Zhejiang Province
CMQ16198-5	<i>Amanita tianmuensis</i>	1	0	3.3	0.23	0	0	2.9	0.55	2.6	0.7	0	Lao-dian, Mt.Tianmu, Lin'an District, Hangzhou City, Zhejiang Province
CMQ16198-6	<i>Amanita tianmuensis</i>	1	0	2.2	0.18	0	0	1.85	0.4	1.9	0.4	0	Lao-dian, Mt.Tianmu, Lin'an District, Hangzhou City, Zhejiang Province