processes

MDPI

Article

Analysis of the fungi community variation during rice storage through high throughput sequencing

Supplementary Table S1 The effect of orientation, vertical position, and storage time on fungal alpha diversity and relative abundance of dominant Eumycota

	Orientation	Vertical position	Storage time
Fungus-Shannon	(1.613, 0.204)	(0.075, 0.928)	(0.190, 0.664)
Fungus-Chao1	(2.829, 0.064)	(0.254, 0.776)	(11.930, 0.001)
Ascomycota	(3.020, 0.053)	(1.988, 0.142)	(14.941, <0.001)
Basidiomycota	(1.529, 0.222)	(0.468, 0.627)	(0.149, 0.701)
Mucoromucota	(0.542, 0.583)	(0.445, 0.642)	(17.627, <0.001)

Supplementary Table S2 Relative abundance of dominant fungi on the rice surface at the phylum level

		Ascomycota (%)	Basidiomycota (%)	Mucoromycota (%)
Orientation	A	72.14 ±2.72b	8.75 ±1.77a	10.54 ±2.51a
	C	82.24 ±2.49a	5.01 ±1.07a	7.50 ±2.09a
	S	78.13 ±3.33ab	5.84 ±1.75a	10.58 ±2.49a
Vertical position	L1	77.31 ±3.26a	6.61 ±1.72a	9.36 ±2.48a
	L2	77.69 ±2.40a	5.93 ±1.26a	10.17 ±2.26a
	L3	77.66 ±3.14a	7.01 ±1.73a	9.04 ±2.39a
Storage time	Y1	83.83 ±1.83a	6.87 ±1.22a	4.09 ±1.30b
	Y2	71.39 ±2.60b	6.16 ±1.36a	14.87 ±2.17a

Different letters indicate significant differences at the phylum level ($p<0.05$, Duncan's test, T-test).

Supplementary Table S3 Relative abundance of dominant fungal genera

	Orientation			Vertical position			Storage time	
	A	C	S	L1	L2	L3	Y1	Y2
Candida	5.07 ±1.77b	6.35 ±1.97b	17.26 ±4.38a	7.75 ±2.77a	8.75 ±3.01a	12.18 ±3.42a	12.08 ±3.05a	7.04 ±1.80a
Fusarium	16.97 ±6.68a	18.70 ±3.15a	10.63 ±2.39a	11.24 ±2.72a	15.06 ±3.33a	20.00 ±3.26a	21.14 ±2.77a	9.73 ±2.13b
Rhizopus	9.21 ±2.39a	7.19 ±2.04a	10.19 ±2.46a	9.14 ±2.47a	8.96 ±2.15a	8.50 ±2.30a	3.38 ±1.19b	14.35 ±2.14a
Aspergillus	29.55 ±3.35a	29.81 ±3.68a	25.96 ±3.48a	34.41 ±3.84a	31.41 ±3.78a	19.50 ±2.16b	28.59 ±2.02a	28.28 ±3.52a
Wallemia	1.82 ±0.57a	1.21 ±0.30a	2.03 ±0.74a	1.78 ±0.61a	1.71 ±0.55a	1.57 ±0.54a	2.08 ±0.53a	1.29 ±0.37a
Pichiia	0.39 ±0.18a	2.28 ±1.24a	1.75 ±0.77a	1.38 ±0.74a	0.68 ±0.23a	2.35 ±1.25a	1.44 ±0.59a	1.50 ±0.79a
Mucor	0.73 ±0.66a	0.02 ±0.01a	0.05 ±0.05a	0.02 ±0.01a	0.74 ±0.66a	0.05 ±0.03a	0.52 ±0.45a	0.01 ±0.00a
Saitozyma	0.93 ±0.54a	0.47 ±0.24a	0.16 ±0.04a	0.32 ±0.11a	0.44 ±0.23a	0.79 ±0.53a	0.74 ±0.39a	0.30 ±0.08a
Penicillium	1.22 ±0.25a	0.77 ±0.20ab	0.48 ±0.06b	0.98 ±0.23a	0.97 ±0.22a	0.52 ±0.08a	0.94 ±0.17a	0.70 ±0.14a
Cladosporium	0.94 ±0.19a 1.29 ±0.72a	0.59 ±0.12a 0.11 ±0.04a	0.62 ±0.14a 0.22 ±0.15a	0.77 ±0.21a 0.92 ±0.68a	0.63 ±0.12a 0.29 ±0.22a	0.75 ±0.12a 0.41 ±0.25a	0.71 ±0.09a 0.20 ±0.14a	0.72 ±0.16a 0.88 ±0.48a
Magnaporthe	0.19 ±0.03a	0.36 ±0.16a	0.43 ±0.21a	0.22 ±0.05a	0.22 ±0.06a	0.54 ±0.25a	0.32 ±0.14a	0.33 ±0.11a
Clonostachys	0.57 ±0.15a	0.40 ±0.09a	0.32 ±0.07a	0.43 ±0.13a	0.31 ±0.08a	0.55 ±0.12a	0.46 ±0.09a	0.40 ±0.09a
Sarocladium	0.24 ±0.04a	0.15 ±0.03a	0.19 ±0.04a	0.17 ±0.05a	0.18 ±0.03a	0.23 ±0.03a	0.22 ±0.03a	0.17 ±0.03a
Alternaria	0.22 ±0.08a	0.37 ±0.15a	0.10 ±0.02a	0.21 ±0.08a	0.35 ±0.15a	0.13 ±0.03a	0.24 ±0.10a	0.21 ±0.07a
Talaromyces	0.37 ±0.11a	0.12 ±0.03b	0.18 ±0.08ab	0.26 ±0.09ab	0.08 ±0.02b	0.33 ±0.11a	0.25 ±0.07a	0.19 ±0.06a
Paracoino-thyrium	0.19 ±0.04a 0.11 ±0.02a	0.27 ±0.07a 0.20 ±0.09a	0.31 ±0.12a 0.16 ±0.05a	0.20 ±0.06a 0.20 ±0.09a	0.35 ±0.12a 0.12 ±0.04a	0.21 ±0.05a 0.16 ±0.04a	0.32 ±0.08a 0.07 ±0.01b	0.19 ±0.05a 0.25 ±0.07a
Curvularia	0.09 ±0.02a	0.22 ±0.09a	0.16 ±0.06a	0.18 ±0.09a	0.14 ±0.05a	0.15 ±0.05a	0.03 ±0.00b	0.28 ±0.07a
Phaeo-sphaeria	0.10 ±0.02b 0.27 ±0.05b	0.31 ±0.09a 0.19 ±0.03a	0.14 ±0.05b 0.17 ±0.04b	0.15 ±0.05a 0.21 ±0.05a	0.18 ±0.07a 0.16 ±0.03a	0.22 ±0.06a 0.26 ±0.04a	0.13 ±0.03a 0.18 ±0.03a	0.24 ±0.06a 0.24 ±0.04a
Ophio-sphaerella	0.01 ±0.00a 0.07 ±0.02b	0.02 ±0.01a 0.05 ±0.03b	0.09 ±0.03a 0.03 ±0.01a	0.01 ±0.00b 0.04 ±0.01a	0.06 ±0.03b 0.08 ±0.04a	0.05 ±0.02a 0.04 ±0.01a	0.06 ±0.02a 0.04 ±0.01a	0.02 ±0.01a 0.06 ±0.02a
Nigrospora	0.05 ±0.02a	0.04 ±0.03a	0.08 ±0.05a	0.02 ±0.01a	0.10 ±0.06a	0.05 ±0.02a	0.06 ±0.04a	0.06 ±0.02a
Pyrenochae-topsis	0.17 ±0.17a 0.16 ±0.13a	0.03 ±0.02a 0.11 ±0.09a	0.01 ±0.00a 0.02 ±0.01a	0.01 ±0.00a 0.01 ±0.00a	0.01 ±0.00a 0.04 ±0.02a	0.20 ±0.17a 0.24 ±0.16a	0.14 ±0.11a 0.18 ±0.10a	0.00 ±0.00a 0.01 ±0.00a
Clavispora	1.13 ±0.59a	0.25 ±0.07a	1.90 ±1.45a	0.47 ±0.17a	0.60 ±0.18a	2.21 ±1.54a	0.34 ±0.10a	1.85 ±1.04a
Setophoma	0.07 ±0.02a	0.17 ±0.06a	0.08 ±0.03a	0.08 ±0.03a	0.14 ±0.05a	0.10 ±0.04a	0.07 ±0.02a	0.14 ±0.04a
Shiraia	0.08 ±0.06a	0.03 ±0.01a	0.07 ±0.03a	0.08 ±0.05a	0.04 ±0.02a	0.06 ±0.03a	0.03 ±0.01a	0.09 ±0.04a
Rhodotorula Naganishia Tilletia Edenia Diutina Gibberella	0.98 ±0.24a	1.68 ±0.64a	4.71 ±2.12a	2.60 ±1.30a	1.55 ±0.67a	3.22 ±1.74a	1.07 ±0.21a	3.84 ±1.48a

Different letters indicate significant differences ($p<0.05$, Duncan's test, T-test).

Supplementary Table S4 The relative abundance of 30 dominant fungal genera under different orientation, vertical position, and storage time

	Orientation	Vertical position	Storage time
Candida	(21.609, <0.001)	(0.968, 0.383)	(8.058, 0.005)
Fusarium	(4.209, 0.017)	(2.349, 0.100)	(6.515, 0.012)
Rhizopus	(1.827, 0.166)	(0.091, 0.913)	(21.038, <0.001)
Aspergillus	(0.159, 0.853)	(5.400, 0.006)	(11.981, 0.001)
Wallemia	(2.126, 0.124)	(0.147, 0.863)	(2.464, 0.119)
Pichiia	(3.469, 0.035)	(3.342, 0.039)	(0.082, 0.776)
Mucor	(3.966, 0.022)	(4.226, 0.017)	(4.616, 0.034)
Saitozyma	(3.041, 0.052)	(1.509, 0.226)	(3.980, 0.049)
Penicillium	(9.379, <0.001)	(4.342, 0.015)	(1.034, 0.312)
Cladosporium	(3.051, 0.052)	(2.236, 0.112)	(4.274, 0.041)
Magnaporthe	(9.246, <0.001)	(2.097, 0.128)	(6.118, 0.015)
Clonostachys	(2.310, 0.104)	(4.376, 0.015)	(0.073, 0.787)
Sarocladium	(3.163, 0.046)	(1.256,0.289)	(0.516, 0.474)
Alternaria	(1.217, 0.300)	(0.706, 0.496)	(0.331, 0.566)
Talaromyces	(4.958, 0.009)	(4.292, 0.016)	(0.176, 0.676)
Paracoinothyrium	(7.528, 0.001)	(7.254, 0.001)	(0.762, 0.385)
Curvularia	(2.799, 0.065)	(3.522, 0.033)	(1.778, 0.185)
Phaeosphaeria	(2.524, 0.085)	(1.796, 0.171)	(16.123, <0.001)
Ophiosphaerella	(4.364, 0.015)	(0.956, 0.388)	(25.835, <0.001)
Nigrospora	(13.716, <0.001)	(0.237, 0.789)	(11.764, 0.001)
Pyrenochaetopsis	(2.219, 0.114)	(1.821, 0.167)	(0.703, 0.404)
Clavispora	(11.525, <0.001)	(3.872, 0.024)	(4.468, 0.037)
Setophoma	(1.581, 0.211)	(4.016, 0.021)	(3.336, 0.071)
Shiraia	(0.761, 0.470)	(4.571, 0.012)	(0.062, 0.804)
Rhodotorula	(3.509, 0.033)	(4.525, 0.013)	(4.554, 0.035)
Naganishia	(2.380, 0.098)	(7.434, 0.001)	(9.185, 0.003)
Tilletia	(2.572, 0.081)	(4.895, 0.009)	(6.710, 0.011)
Edenia	(6.141, 0.003)	(1.941, 0.149)	(8.138, 0.005)
Diutina	(3.112, 0.049)	(0.928, 0.399)	(9.347, 0.003)
Gibberella	(8.027, 0.001)	(0.976, 0.380)	(11.032, 0.001)

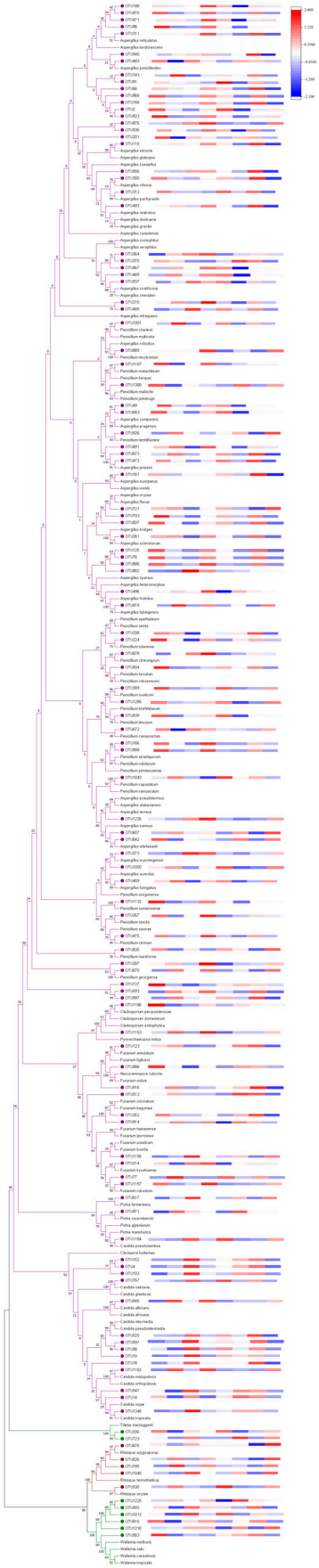
Supplementary Table S5 The relative abundance of core fungi OTUs in different storage orientations

	Name	**Orientation**	**Vertical position**	**Storage time**
OTU2	Aspergillus	(0.535, 0.587)	(0.936, 0.395)	(3.125, 0.080)
OTU4	Candida	(3.975, 0.022)	(0.560, 0.573)	(32.909, <0.001)
OTU14	Candida	(1.235, 0.295)	(1.208, 0.303)	(8.163, 0.005)
OTU18	Candida	(1.883, 0.157)	(0.005, 0.995)	(20.992, <0.001)
OTU19	Candida	(4.023, 0.021)	(1.235, 0.295)	(4.146, 0.044)
OTU49	Candida	(0.947, 0.391)	(0.983, 0.378)	(0.697, 0.406)
OTU66	unclassified-Aspergillus	(0.154, 0.857)	(1.158, 0.318)	(20.496, <0.001)

OTU76	Penicillium	(1.687, 0.190)	(0.953, 0.389)	(12.959, <0.001)
OTU77	Fusarium	(1.315, 0.273)	(0.841, 0.434)	(5.145, 0.025)
OTU91	Aspergillus	(0.038, 0.963)	(1.624, 0.202)	(0.129, 0.720)
OTU96	Aspergillus	(1.947, 1.148)	(1.306, 0.275)	(2.329, 0.130)
OTU98	Candida	(4.209, 0.017)	(1.016, 0.366)	(4.722, 0.032)
OTU103	Candida	(3.531, 0.033)	(0.633, 0.533)	(11.730, 0.001)
OTU110	Aspergillus	(0.021, 0.980)	(1.540, 0.219)	(32.102, <0.001)
OTU123	Fusarium	(1.767, 0.176)	(1.955, 0.147)	(6.135, 0.015)
OTU125	Penicillium	(1.820, 0.167)	(1.058, 0.351)	(10.234, 0.002)
OTU143	Aspergillus	(2.847, 0.062)	(0.119, 0.888)	(1.261, 0.264)
OTU152	Candida	(3.899, 0.023)	(0.565, 0.570)	(20.111, <0.001)
OTU158	Aspergillus	(0.552, 0.577)	(2.250, 0.110)	(22.229, <0.001)
OTU161	Aspergillus	(0.369, 0.692)	(0.210, 0.811)	(23.506, <0.001)
OTU166	Penicillium	(1.347, 0.264)	(2.048, 0.134)	(3.262, 0.074)
OTU188	Aspergillus	(0.075, 0.928)	(4.258, 0.017)	(6.989, 0.009)
OTU201	Aspergillus	(7.847, 0.001)	(0.782, 0.460)	(0.714, 0.400)
OTU214	Fusarium	(0.975, 0.381)	(1.350, 0.264)	(0.245, 0.622)
OTU215	Aspergillus	(0.161, 0.852)	(1.096, 0.338)	(0.033, 0.856)
OTU224	Penicillium	(2.678, 0.073)	(0.680, 0.509)	(2.268, 0.135)
OTU261	Aspergillus	(1.666, 0.194)	(1.131, 0.327)	(13.532, <0.001)
OTU267	Penicillium	(1.200, 0.305)	(2.008, 0.139)	(0.241, 0.625)
OTU273	Aspergillus	(1.302, 0.276)	(0.968, 0.383)	(1.207, 0.274)
OTU287	Aspergillus	(0.187, 0.830)	(2.275, 0.108)	(1.272, 0.262)
OTU300	Aspergillus	(0.346, 0.709)	(0.111, 0.895)	(7.888, 0.006)
OTU309	Penicillium	(1.334, 0.268)	(1.094, 0.339)	(2.916, 0.091)
OTU311	Aspergillus	(0.055, 0.947)	(2.648, 0.075)	(15.560, <0.001)
OTU312	Aspergillus	(0.515, 0.599)	(0.903, 0.409)	(7.667, 0.007)
OTU336	Tilletia	(1.042, 0.357)	(0.928, 0.398)	(0.688, 0.409)
OTU338	Penicillium	(1.204, 0.304)	(0.041, 0.960)	(8.044, 0.005)
OTU352	Gibberella	(0.405, 0.668)	(0.285, 0.753)	(6.182, 0.014)
OTU364	Aspergillus	(0.600, 0.551)	(0.641, 0.529)	(1.806, 0.182)
OTU370	Aspergillus	(1.244, 0.292)	(3.195, 0.045)	(15.038, <0.001)
OTU459	Aspergillus	(0.446, 0.641)	(0.342, 0.711)	(0.400, 0.528)
OTU467	Aspergillus	(0.106, 0.900)	(1.167, 0.315)	(4.600, 0.034)
OTU469	Aspergillus	(0.106, 0.900)	(0.471, 0.626)	(1.152, 0.286)
OTU471	Aspergillus	(0.065, 0.937)	(2.789, 0.066)	(6.582, 0.012)
OTU473	Aspergillus	(0.385, 0.682)	(0.347, 0.707)	(7.319, 0.008)
OTU475	Penicillium	(0.736, 0.482)	(1.656, 0.196)	(0.978, 0.325)
OTU483	Aspergillus	(0.652, 0.523)	(0.115, 0.891)	(0.510, 0.477)
OTU485	Aspergillus	(2.559, 0.082)	(0.632, 0.534)	(6.132, 0.015)
OTU492	Wallemia	(0.779, 0.462)	(0.135, 0.874)	(3.033, 0.084)
OTU493	Aspergillus	(0.102, 0.903)	(0.819, 0.444)	(13.205, <0.001)
OTU496	Aspergillus	(0.019, 0.981)	(0.947, 0.391)	(0.062, 0.803)
OTU504	Penicillium	(2.252, 0.110)	(0.257, 0.774)	(7.911, 0.006)
OTU507	Aspergillus	(0.809, 0.448)	(0.291, 0.748)	(10.252, 0.002)
OTU513	Gibberella	(0.553, 0.577)	(3.036, 0.052)	(17.786, <0.001)
OTU525	Candida	(2.421, 0.094)	(1.132, 0.326)	(7.518, 0.007)
OTU530	Rhizopus	(0.982, 0.378)	(2.774, 0.067)	(3.803, 0.054)
OTU539	Penicillium	(0.661, 0.518)	(0.879, 0.418)	(0.001, 0.976)
OTU547	Candida	(2.447, 0.091)	(0.785, 0.459)	(6.044, 0.016)

OTU556	Aspergillus	(0.551, 0.578)	(0.621, 0.539)	(21.403, <0.001)
OTU563	Wallemia	(1.535, 0.220)	(0.374, 0.689)	(5.469, 0.021)
OTU593	Aspergillus	(0.328, 0.721)	(0.419, 0.659)	(0.767, 0.383)
OTU597	Candida	(4.139, 0.019)	(0.060, 0.942)	(17.507, <0.001)
OTU607	Aspergillus	(0.084, 0.919)	(0.143, 0.867)	(1.917, 0.169)
OTU617	Pichia	(0.974, 0.381)	(0.172, 0.842)	(7.208, 0.008)
OTU626	Rhizopus	(1.949, 0.148)	(0.946, 0.392)	(15.923, <0.001)
OTU653	Aspergillus	(0.996, 0.373)	(1.282, 0.282)	(0.613, 0.435)
OTU670	Penicillium	(0.897, 0.411)	(1.065, 0.348)	(14.635, <0.001)
OTU672	Penicillium	(1.132, 0.326)	(0.138, 0.872)	(2.752, 0.100)
OTU673	Aspergillus	(0.540, 0.585)	(0.373, 0.689)	(17.406, <0.001)
OTU676	Rhizopus	(0.786, 0.458)	(0.004, 0.996)	(21.010, <0.001)
OTU678	Penicillium	(0.513, 0.600)	(1.235, 0.295)	(0.004, 0.951)
OTU703	Aspergillus	(1.831, 0.165)	(0.222, 0.802)	(12.846, 0.001)
OTU721	Aspergillus	(0.641, 0.529)	(0.225, 0.799)	(6.941, 0.010)
OTU723	Tilletia	(0.725, 0.487)	(1.371, 0.258)	(6.680, 0.011)
OTU727	Aspergillus	(0.962, 0.385)	(0.108, 0.898)	(0.669, 0.415)
OTU767	Candida	(0.896, 0.411)	(1.006, 0.369)	(4.589, 0.034)
OTU785	Rhizopus	(2.695, 0.072)	(0.694, 0.502)	(4.270, 0.041)
OTU815	Wallemia	(1.423, 0.246)	(0.445, 0.642)	(4.206, 0.043)
OTU819	Aspergillus	(1.631, 0.201)	(.0627, 0.536)	(7.126, 0.009)
OTU835	Penicillium	(0.092, 0.921)	(0.074, 0.929)	(3.545, 0.062)
OTU842	Aspergillus	(1.970, 0.145)	(1.049, 0.354)	(15.401, <0.001)
OTU876	Aspergillus	(0.542, 0.583)	(1.710, 0.186)	(7.224, 0.008)
OTU882	Penicillium	(2.306, 0.105)	(0.390, 0.678)	(0.347, 0.557)
OTU886	Penicillium	(0.996, 0.373)	(1.371, 0.258)	(2.611, 0.109)
OTU889	Penicillium	(0.010, 0.990)	(1.990, 0.142)	(9.563, 0.003)
OTU891	Penicillium	(1.045, 0.355)	(1.098, 0.337)	(0.045, 0.832)
OTU914	Fusarium	(0.251, 0.778)	(0.908, 0.407)	(0.195, 0.660)
OTU916	Fusarium	(1.469, 0.235)	(0.475, 0.623)	(16.035, <0.001)
OTU923	Aspergillus	(1.925, 0.151)	(1.075, 0.345)	(3.910, 0.051)
OTU926	Penicillium	(0.328, 0.721)	(0.121, 0.886)	(7.909, 0.006)
OTU936	Aspergillus	(0.287, 0.751)	(1.534, 0.220)	(0.055, 0.814)
OTU937	Aspergillus	(0.446, 0.641)	(0.883, 0.416)	(0.125, 0.724)
OTU940	Aspergillus	(0.153, 0.858)	(0.279, 0.757)	(1.978, 0.163)
OTU945	Candida	(0.911, 0.405)	(0.790, 0.457)	(1.621, 0.206)
OTU968	Aspergillus	(1.896, 0.155)	(1.381, 0.256)	(1.874, 0.174)
OTU970	Aspergillus	(0.300, 0.741)	(0.251, 0.778)	(0.174, 0.677)
OTU971	Pichia	(1.290, 0.280)	(1.082, 0.343)	(0.034, 0.855)
OTU986	Fusarium	(1.124, 0.329)	(0.306, 0.737)	(1.981, 0.162)
OTU997	Aspergillus	(0.777, 0.463)	(0.247, 0.782)	(0.646, 0.423)
OTU998	Penicillium	(1.006, 0.369)	(1.050, 0.354)	(3.698, 0.057)
OTU1001	Penicillium	(1.365, 0.260)	(0.619, 0.540)	(1.469, 0.228)
OTU1012	Wallemia	(1.622, 0.202)	(1.101, 0.336)	(0.113, 0.738)
OTU1040	Rhizopus	(2.734, 0.070)	(0.629, 0.535)	(16.640, <0.001)

OTU1042	Penicillium	(0.216, 0.806)	(0.704, 0.497)	(0.477, 0.491)
OTU1050	Aspergillus	(0.604, 0.548)	(1.458, 0.237)	(6.415, 0.013)
OTU1107	Penicillium	(3.318, 0.047)	(1.702, 0.187)	(0.001, 0.971)
OTU1132	Penicillium	(2.802, 0.065)	(1.493, 0.229)	(0.014, 0.905)
OTU1153	Cladosporium	(0.891, 0.413)	(1.891, 0.156)	(4.356, 0.039)
OTU1157	Fusarium	(0.637, 0.531)	(1.450, 0.239)	(3.858, 0.052)
OTU1182	Candida	(0.819, 0.444)	(0.813, 0.446)	(3.490, 0.065)
OTU1184	Pichia	(0.910, 0.406)	(1.014, 0.336)	(4.077, 0.046)
OTU1186	Cladosporium	(1.713, 0.185)	(0.171, 0.843)	(4.428, 0.038)
OTU1195	Gibberella	(2.779, 0.067)	(0.259, 0.772)	(12.883, 0.001)
OTU1218	Wallemia	(0.060, 0.942)	(0.306, 0.737)	(3.945, 0.050)
OTU1225	Wallemia	(0.026, 0.974)	(0.590, 0.556)	(0.011, 0.918)
OTU1226	Aspergillus	(0.293, 0.746)	(1.039, 0.357)	(0.475, 0.492)
OTU1285	Penicillium	(0.552, 0.595)	(1.366, 0.260)	(3.483, 0.065)
OTU1348	Candida	(4.975, 0.009)	(0.563, 0.571)	(7.968, 0.006)
OTU1368	Penicillium	(0.899, 0.410)	(0.483, 0.618)	(3.904, 0.051)



Supplementary Figure S1. Evolutionary tree of the 43 fungal core OTU sequences from rice samples