

**S1 Table. Primers and thermal cycling conditions used to amplify each barcoding region for insects, macro-fungi, and plants.**

Group	Barcode Region	Primers	Cycling conditions
Insects	<i>COI</i>	LCO1490-L/HCO2198-L (1)	1X 95°C for 2 min 40X 94°C for 30 sec, 52°C for 30 sec, 72°C for 2 min 1X 72°C for 5 min
		LCO1490/HCO2198 (2)	1X 95°C for 2 min 43X 94°C for 30 sec, 56°C for 30 sec, 72°C for 1 min 1X 72°C for 5 min
		LepF1/LepR1 (3)	1X 95°C for 2 min 5X 94°C for 40 sec, 45°C for 40 sec, 72°C for 70 sec 35X 94°C for 40 sec, 51°C for 40 sec, 72°C for 70 sec 1X 72°C for 5 min
		LepF1/MLepR1 (4) -35 cycles MLepF1/LepR1 (4) -38 cycles	1X 95°C for 2 min 5X 94°C for 30 sec, 45°C for 40 sec, 72°C for 1 min 35-38X 94°C for 30 sec, 51°C for 40 sec, 72°C for 1 min 1X 72°C for 5 min
Macro-fungi	<i>ITS1</i> <i>ITS2</i>	ITS5/ITS2 (5) ITS3/ITS4 (5)	1X 94°C for 3 min 25-40X 94°C for 30 sec, 55°C for 30 sec, 72°C for 45 sec 1X 72°C for 10 min
Plants	<i>rbcL</i>	rbcLaF (6) /rbcLaR (7) -40 cycles rbcLaF (6) /rbcLajf634R (8) -35 cycles	1X 95°C for 4 min 35-40X 94°C for 30 sec, 55°C for 30 sec, 72°C for 1 min 1X 72°C for 10 min
		rbcLa-1/rbcLa-B (9)	1X 95°C for 3 min 10X 95°C for 30 sec, 48°C for 30 sec, 72°C for 30 sec 25X 88°C for 30 sec, 52°C for 30 sec, 72°C for 30 sec 1X 60°C for 10 min
	<i>matK</i>	matK-KIM1R-F/matK-KIM3F-R (10,11) matK-xf (12) /matKMALPR1 (13)	1X 94°C for 1 min 35X 94°C for 30 sec, 57°C for 20 sec, 72°C for 10 sec 1X 72°C for 5 min
		matK390F/matK1326R (14)	1X 98°C for 2 min 35X 98°C for 10 sec, 54°C for 30 sec, 72°C for 40 sec 1X 72°C for 10 min
		Gym_F1A/Gym_R1A (15)	1X 94°C for 3 min 35X 94°C for 30 sec, 52°C for 30 sec, 72°C for 45 sec 1X 72°C for 10 min
		moss404F/moss1336R (16) polypodF1/polypodR1 (17) polypodF2/polypodR1(17)	1X 98°C for 2 min 35X 98°C for 10 sec, 50°C for 30 sec, 72°C for 40 sec 1X 72°C for 10 min
	<i>trnH-psbA</i>	psbAF (18) /trnH2 (19) psbA/trnH (20)	1X 98°C for 45 sec 35X 98°C for 10 sec, 64°C for 30 sec, 72°C for 40 sec 1X 72°C for 10 min
	<i>ITS2</i>	ITS2F (21) /ITS4 (5)	1X 94°C for 5 min 35X 94°C for 30 sec, 56°C for 30 sec, 72°C for 45 sec 1X 72°C for 10 min

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