

Figure S1. Example of different distribution shapes of HANTS variable between landcover types

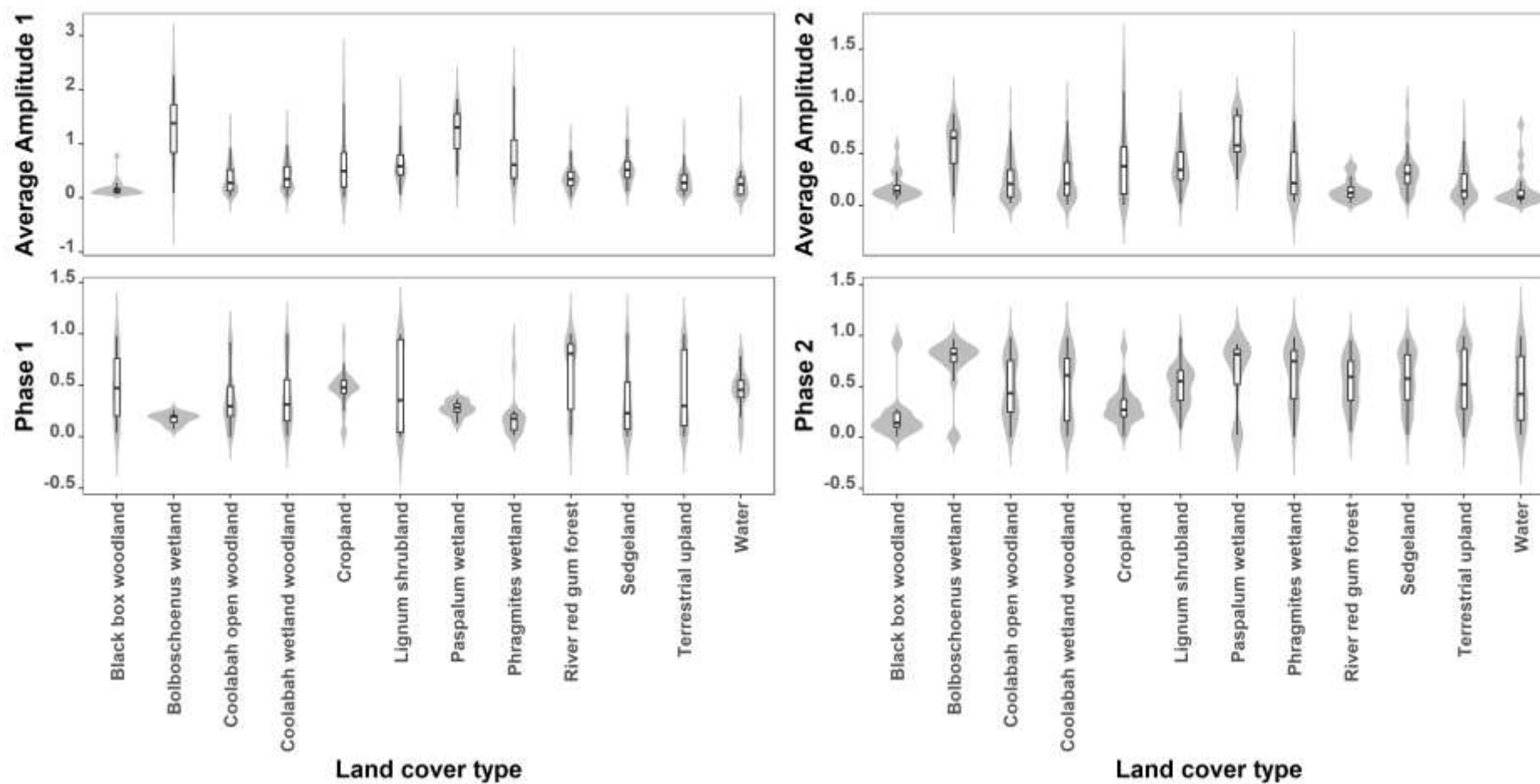


Table S1. Testing Confusion Matrix**Level 1 model**

	Cropland	Terrestrial	Water	Wetland
Cropland	15	0	0	4
Terrestrial	0	22	0	10
Water	0	0	5	2
Wetland	4	4	0	127

L2 model

	Cropland	Forest	Marsh	Sedgeland	Shrubland	Terrestrial	Water	Woodland
Cropland	18	0	0	0	0	1	0	1
Forest	0	13	0	0	2	0	0	0
Marsh	0	0	16	3	0	0	0	0
Sedgeland	1	1	0	11	1	0	0	2
Shrubland	0	1	0	0	18	0	0	4
Terrestrial	0	1	0	0	0	19	0	6
Water	0	0	1	1	1	0	5	0
Woodland	0	1	0	3	1	6	0	54

L3 model

	VC1	VC2	VC3	VC4	VC5	VC6	VC7	VC8	VC9	VC10	VC11	VC12
VC1	7	0	1	0	0	0	0	0	0	0	0	0
VC2	0	12	4	0	0	0	0	1	2	2	0	0
VC3	0	4	19	0	0	1	0	1	1	1	0	0
VC4	0	1	2	19	0	0	0	0	4	0	0	0
VC5	0	0	0	0	5	0	3	0	3	0	0	0
VC6	0	4	1	0	1	16	0	2	1	3	1	0
VC7	0	0	0	0	0	0	1	0	0	0	0	0
VC8	0	0	0	0	0	2	0	11	0	0	0	0
VC9	0	2	2	0	1	2	0	0	7	0	0	0
VC10	0	4	2	0	0	1	0	2	0	20	0	0
VC11	0	1	0	0	0	1	0	0	0	0	4	0
VC12	0	0	0	0	0	0	0	0	0	0	0	6

VC1=Black box woodland; VC2=Coolabah wetland woodland; VC3=Coolabah open woodland; VC4=Cropland;
VC5=*Phragmites* wetland; VC6=*Lignum* shrubland; VC7=*Bolboschoenus* wetland; VC8=River red gum forest;
VC9=Sedgeland; VC10=Terrestrial; VC11=Water; VC12=*Paspalum* wetland.