

Table S1 Geographical distribution information of *A.squarrosus* populations used in this study.

Groups	Populations	Latitude (N°)	Longitude (E°)	Altitude (m)
High-altitude	DL	36°25'25.77"	98°7'25.35"	3123
	TGX	36°10'02.09"	100°34'13.85"	2905
	QHH	36°43'3.13"	100°47'17.46"	3251
Mid-altitude	SPT	37°32'33.58"	105°02'10.14"	1656
	SSL	39°24'2.772"	108°34'42.492"	1537
	AYQ	39°15'6.45"	101°40'52.02"	1523
	HJQ	39°51'0.97"	109°17'0.81"	1395
	BB	37°36'50.84"	107°36'14.19"	1354
	YLH	38°44'45.83"	105°21'19.76"	1286
	WSQ	38°33'23.36"	108°51'6.05"	1279
	MMH	38°50'30.30"	106°49'34.02"	1270
	BYWS	39°56'31.40"	108°34'46.59"	1266
	BLG	40°15'42.68"	107°2'6.34"	1072
	HLHR	42°50'15.30"	116°21'25.00"	1345
	KSKT	43°10'28.8"	117°34'48"	1283
Low-altitude	XBEH	48°58'28.02"	119°58'1.308"	653
	WNT	43°14'4.44"	118°35'57.42"	630
	KEQ	43°5'27.36"	119°18'56.64"	576
	WLAD	42°59'31.2"	119°39'46.8"	491
	NM	42°52'29.68"	120°38'46.77"	373.6
	AEX	42°52'4.80"	122°25'40.14"	251
	DALIN	43°42'30.60"	122°50'36.30"	152.6