

Table S1 Information on the study sites, pollinator information (pollinator species and guilds, pollinator proboscis length and visitation rate of each pollinator guild) and population sizes for the 11 studied *Lonicera* species in each natural population.

Species	GPS coordinate/ site abbreviation	Altitude (m)	Pollinator species	Pollinator guild	Proboscis length for each pollinator (mm)	Visitation rate (visiting number/flower/20mi n, N=30)	Population sizes
<i>L. chrysantha</i>	33°59'1"(N) 107°16'5"(E) TB-SX	2106	<i>Apis cerana</i>	Honeybee	3.045±0.095, N=28	0.045±0.0085	> 200
			<i>Bombus pyrosoma, B. flavus</i>	Bumblebee	7.817±0.201, N=23	0.057±0.0065	
<i>L. elisae</i>	34°00'2"(N) 107°17'5"(E) TB-SX	1829	<i>Apis cerana</i>	Honeybee	3.045±0.095, N=28	0.0033±0.0019	> 100
			<i>Osmia Sp.</i>	Leafcutter bee	8.864±0.247, N=19	0.0824±0.0103	
<i>L. ferdinandi</i>	34°04'2"(N) 107°21'2"(E) TB-SX	1622	<i>Apis cerana</i>	Honeybee	3.045±0.095, N=28	0.0486±0.0067	> 100
			<i>Bombus picipes</i>	Bumblebee	7.817±0.201, N=23	0.01±0.0042	

<i>L. gynochlamyde</i> <i>a</i>	31°25'5"(N) 110°21'5"(E) SNJ-HB	1456	<i>Lasioglossum calceatum, L. scitulum</i>	Solitary bee	2.449±0.104, N=20	0.012±0.0043	> 100
			<i>Apis cerana</i>	Honeybee	3.045±0.095, N=28	0.0574±0.0024	
			<i>Bombus festivus, B. lucorum</i>	Bumblebee	7.817±0.201, N=23	0.032±0.0079	
			<i>Ceratina chinensis</i>	Solitary bee	2.449±0.104, N=20	0.0132±0.0019	
<i>L. japonica</i>	33°49'3"(N) 107°30'1"(E) TB-SX	1372	<i>Xylocopa sinensis, Bombus trifasciatus, Theretra nessus</i>	Bumblebee	7.817±0.201, N=23	0.0567±0.0075	> 100
			<i>Macroglossum pyrrhosticta, M. bombylans, M. bombylans, Theretra nessus</i>	Hawkmoth	41.15±1.044, N=6	0.011±0.0043	

<i>L. maackii</i>	34°04'2"(N) 107°21'2"(E) TB-SX	1622	<i>Apis cerana</i>	Honeybee	3.045±0.095, N=28	0.103±0.0095	> 300
<i>L. pileata</i>	31°26'5"(N) 110°23'2"(E) SNJ-HB	1178	<i>Apis cerana</i>	Honeybee	3.045±0.095, N=28	0.0256±0.0131	> 100
			<i>Bombus festivus, B. pyrosoma</i>	Bumblebee	7.817±0.201, N=23	0.0556±0.0212	
			<i>Ceratina chinensis</i>	Solitary bee	2.449±0.104, N=20	0.0254±0.0063	
<i>L. standishii</i>	34°04'2"(N) 107°21'2"(E) TB-SX	1647	<i>Apis cerana</i>	Honeybee	3.045±0.095, N=28	0.0813±0.0101	> 200
			<i>Bombus lucorum, B. picipes, Episyrphus balteata</i>	Bumblebee	7.817±0.201, N=23	0.005±0.0029	
<i>L. tangutica</i>	33°59'17"(N) 107°16'52"(E) TB-SX	2106	<i>Bombus picipes</i>	Bumblebee	7.817±0.201, N=23	0.105±0.0244	> 100

<i>L. tragophylla</i>	34°01'2"(N) 107°18'3"(E) TB-SX	1648	<i>Thereatra nesus,</i> <i>Macroglossum bombylans, M.</i> <i>pyrrhosticta</i>	Hawkmoth	41.15±1.044, N=6	0.00959±0.0029	> 100
<i>L. webbiana</i>	34°00'4"(N) 107°17'5"(E) TB-SX	1844	<i>Apis cerana</i>	Honeybee	3.045±0.095, N=28	0.0762±0.0074	> 100
			<i>Episyrphus balteata</i>	Bumblebee	7.817±0.201, N=23	0.00815±0.0042	
			<i>Lasioglossum calceatum</i>	Solitary bee	2.449±0.104, N=20	0.019±0.0045	
