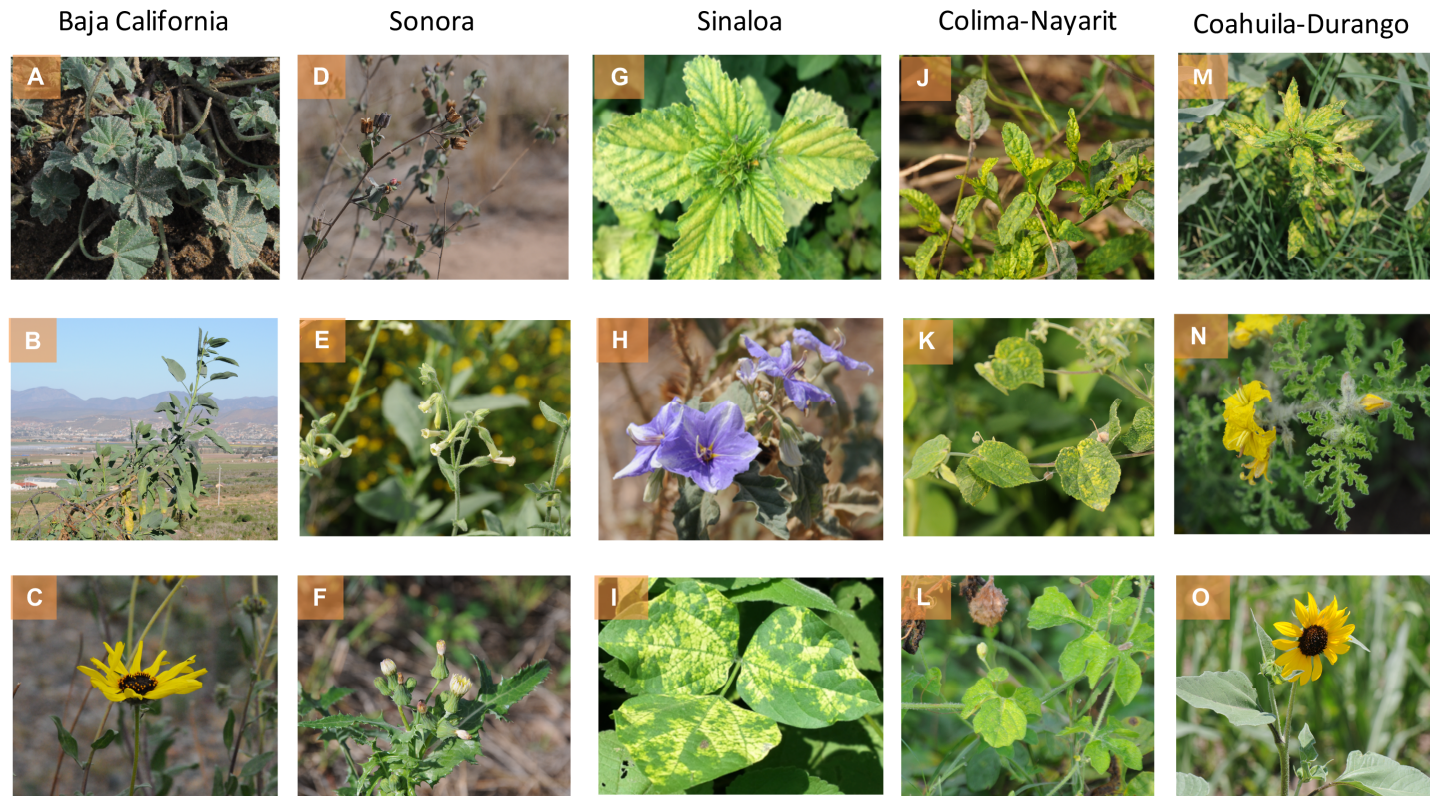
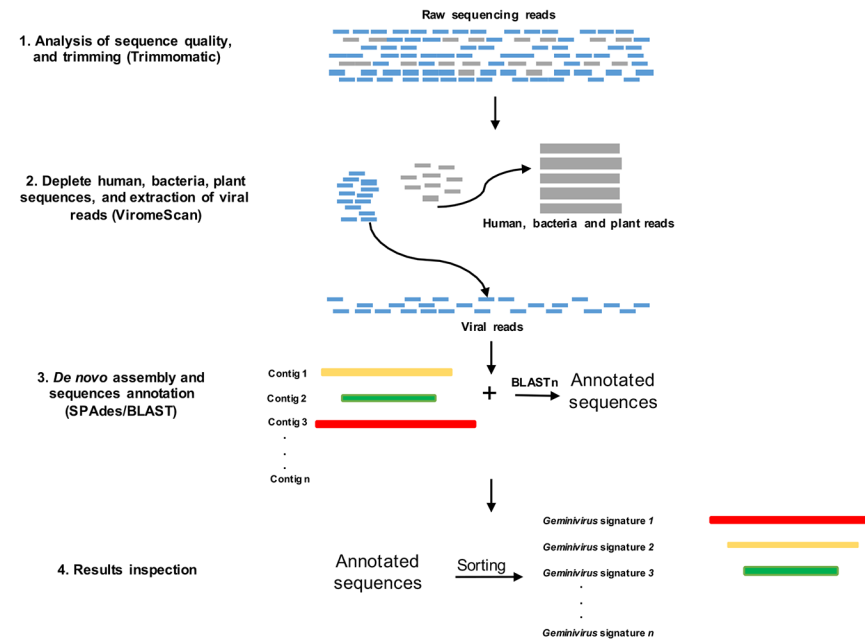


## High-Throughput Sequencing Reveals Differential Begomovirus Species Diversity in Non-Cultivated Plants in Northern-Pacific Mexico

**Supplementary Figure S1.** Non-cultivated plants of the main plant families collected in natural ecosystem in regions of north-pacific Mexico. *Malvaceae*: A, *Malva parviflora*. D, *Abutilon trisulcatum*. J, *Malvastrum coronomandelianum*. K, *Herisantia crispa*. G, *Sida acuta*. M, *Sida rombifolia*. *Solanaceae*: B, *Nicotiana glauca*. E, *Nicotiana plumbaginifolia*. I, *Solanum trydinamum*. N, *Solanum rostratum*. *Asteraceae*: C, *Helianthus niveus*. F, *Sonchus oleraceus*. O, *Helianthus annuus*. *Cucurbitacea*: L, *Momardica charantia*. *Fabaceae*: H, *Rhynchosia minima*.

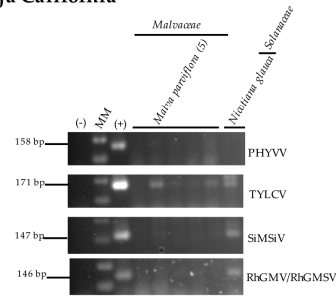


**Supplementary Figure S2.** Generation of Geminivirus-related signatures workflow. 1) Metagenomic reads obtained from each library were trimmed, 2) Each library was filtered (ViromeScan) for human, bacteria, and plant reads to obtain viral reads. 3) All filtered libraries were *de novo* assembled using SPAdes, and contigs were compared against the GeneBank non-redundant database using BLASTn for annotation. 4) Geminivirus-related signatures were classified, and sorted by contig length.

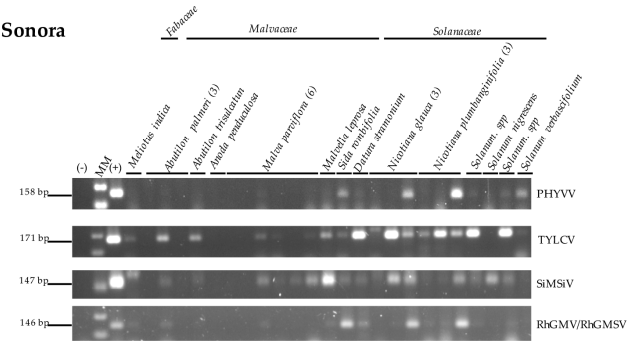


**Supplementary Figure S3.** PCR detection of five geminivirus species in three predominant plant families of non-cultivated plants from northern-pacific Mexico. PCR specific primers (Supplementary Table 6) were designed to detect *Pepper huasteco yellow vein virus* (PHYVV), *Tomato yellow leaf curl virus* (TYLCV), *Sida mosaic Sinaloa virus* (SiMSV), and *Rhynchosia golden mosaic virus/Rhynchosia golden mosaic Sinaloa virus* (RHGMV/RhGMSV). Plants from the *Fabaceae*, *Malvaceae*, and *Solanaceae* plant families sampled in five regions (Baja California, Sonora, Sinaloa, Colima/Nayarit, and Coahuila/Durango) were used (see Materials and Methods). A total of 126 specimens were analyzed for the presence of specific geminiviruses by PCR detection. The plant family and the scientific name of the plant species are indicated. Number of plant specimens analyzed by sampling area is indicated in parenthesis. Asterisks indicate the samples used for full-length viral genomes cloning (TYLCV from *N. glauca*, RhGMV and RhGMSV from *R. minima*, and SiMSV from *S. acuta*).

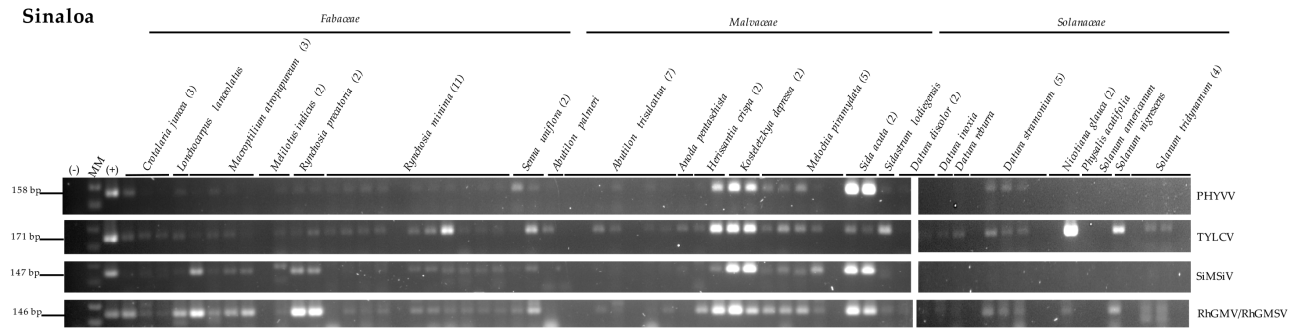
### Baja California



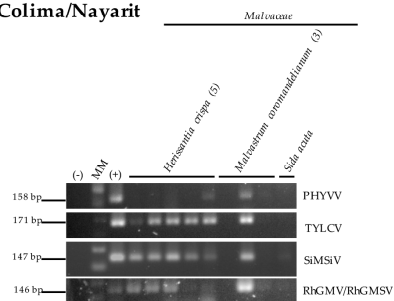
### Sonora



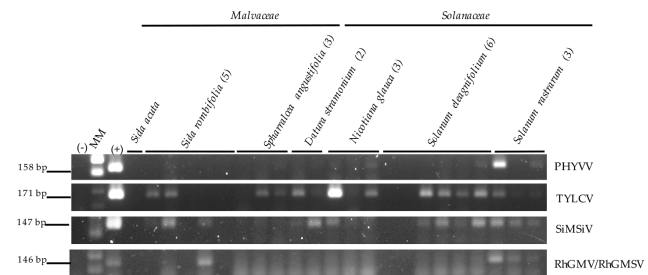
### Sinaloa



### Colima/Nayarit



### Coahuila/Durango



(-): PCR negative control (non-template); MM: molecular marker 1 Kb (ThermoFisher, UK); (+): PCR positive control (plasmidic DNA containing DNA-A of the respective geminivirus). Expected amplicon sizes are indicated by a small line.

**Supplementary Table S1.** Non-cultivated plants collected from northern-pacific regions of Mexico and determination of begomovirus host by PCR-test.

Sampling area <sup>1</sup>	Collection year	Plant Family	Plant species	Positive to begomovirus <sup>2</sup> (PCR test with universal primers)	Geolocalization
BC-EN	2015	<i>Asteraceae</i>	<i>Encelia farinosa</i>	+	31° 40'53.5" N, 116°37'02.7" W
BC-SQ	2014	<i>Asteraceae</i>	<i>Encelia farinosa</i>		30°26'0.596" N, 115°53'6.018" W
BC-SQ	2014	<i>Asteraceae</i>	<i>Erigeron spp</i>		30°26'0.596" N, 115°53'6.018" W
BC-EN	2015	<i>Asteraceae</i>	<i>Gnaphalium americanum</i>		31° 40'53.5" N, 116°37'02.7" W
BC-EN	2015	<i>Asteraceae</i>	<i>Helianthus niveus</i>	+	31° 40'53.5" N, 116°37'02.7" W
BC-EN	2015	<i>Asteraceae</i>	<i>Helianthus niveus</i>		31° 46'17.8" N, 116°33'12.1" W
BC-SQ	2015	<i>Asteraceae</i>	<i>Helianthus niveus</i>	+	30°34'31.8" N, 115°52'50.3" W
BC-SQ	2015	<i>Asteraceae</i>	<i>Isocoma acradenia</i>		30°34'31.8" N, 115°52'50.3" W
BC-SQ	2014	<i>Asteraceae</i>	<i>Sonchus oleraceus</i>	+	30°26'0.596" N, 115°53'6.018" W
BC-SQ	2015	<i>Asteraceae</i>	<i>Sonchus oleraceus</i>		30°30'57.1" N, 115°59'30.0" W
BC-SQ	2014	<i>Boraginaceae</i>	<i>Heliotropium curassavicum</i>		30°26'0.596" N, 115°53'6.018" W
BC-SQ	2015	<i>Brassicaceae</i>	<i>Brassica tournefortii</i>	+	30°34'31.8" N, 115°52'50.3" W
BC-EN	2015	<i>Brassicaceae</i>	<i>Raphanus raphanistrum</i>		31° 46'17.8" N, 116°33'12.1" W
BC-SQ	2015	<i>Chenopodiaceae</i>	<i>Chenopodium berlandieri</i>	+	30°30'57.1" N, 115°59'30.0" W
BC-SQ	2015	<i>Chenopodiaceae</i>	<i>Chenopodium berlandieri</i>	+	30°32'04.1" N, 115°57'13.5" W
BC-ME	2015	<i>Chenopodiaceae</i>	<i>Chenopodium spp</i>	+	32°24'42.5" N, 115°06'53.5" W
BC-SQ	2015	<i>Chenopodiaceae</i>	<i>Chenopodium spp</i>	+	30°32'04.1" N, 115°57'13.5" W
BC-ME	2015	<i>Convolvulaceae</i>	<i>Convolvulus arvensis</i>		32°19'53.2" N, 115°04'20.6" W
BC-SQ	2014	<i>Convolvulaceae</i>	<i>Convolvulus arvensis</i>		30°26'0.596" N, 115°53'6.018" W
BC-EN	2015	<i>Cucurbitaceae</i>	<i>Marah macrocarpa</i>		31° 40'53.5" N, 116°37'02.7" W
BC-EN	2015	<i>Malvaceae</i>	<i>Malva parviflora</i>	+	31° 40'53.5" N, 116°37'02.7" W
BC-SQ	2015	<i>Malvaceae</i>	<i>Malva parviflora</i>	+	30°30'57.1" N, 115°59'30.0" W
BC-SQ	2015	<i>Malvaceae</i>	<i>Malva parviflora</i>	+	30°30'57.1" N, 115°59'30.0" W
BC-SQ	2015	<i>Malvaceae</i>	<i>Malva parviflora</i>	+	30°32'04.1" N, 115°57'13.5" W
BC-SQ	2015	<i>Malvaceae</i>	<i>Malva parviflora</i>	+	30°32'04.1" N, 115°57'13.5" W
BC-SQ	2015	<i>Malvaceae</i>	<i>Sphaeralcea ambigua</i>		30°30'57.1" N, 115°59'30.0" W
BC-EN	2015	<i>Polygonaceae</i>	<i>Rumex crispus</i>		31° 40'53.5" N, 116°37'02.7" W
BC-ME	2015	<i>Polygonaceae</i>	<i>Rumex crispus</i>	+	32°20'06.8" N, 115°04'13.2" W
BC-SQ	2014	<i>Primulaceae</i>	<i>Anagallis arvensis</i>	+	30°26'0.596" N, 115°53'6.018" W
BC-SQ	2014	<i>Solanaceae</i>	<i>Datura stramonium</i>		30°26'0.596" N, 115°53'6.018" W
BC-EN	2015	<i>Solanaceae</i>	<i>Nicotiana glauca</i>	+	31° 40'53.5" N, 116°37'02.7" W
SO-HU	2015	<i>Amaranthaceae</i>	<i>Amaranthus palmeri</i>	+	26° 24'54.5" N, 109°01'15.1" W
SO-OB	2015	<i>Amaranthaceae</i>	<i>Amaranthus palmeri</i>	+	27° 36'22.5" N, 110°08'02.5" W
SO-NA	2015	<i>Amaranthaceae</i>	<i>Amaranthus spinosus</i>		26°96'00.39" N, 109°58'24.36" W

SO-HU	2015	<i>Amaranthaceae</i>	<i>Amaranthus</i> spp	+	26°54'97.04" N, 109°11'88.03" W
SO-HU	2015	<i>Amaranthaceae</i>	<i>Amaranthus</i> spp	+	26° 24'54.5"N, 109°01'15.1"W
SO-OB	2015	<i>Apiaceae</i>	<i>Conium maculatum</i>	+	27° 36'22.5"N, 110°08'02.5"W
SO-HU	2015	<i>Asteraceae</i>	<i>Ambrosia ambrosoides</i>	+	26° 24'54.5"N, 109°01'15.1"W
SO-OB	2015	<i>Asteraceae</i>	<i>Ambrosia ambrosoides</i>	+	27°33'33.5" N, 110°05'17.6" W
SO-HU	2015	<i>Asteraceae</i>	<i>Ambrosia cordifolia</i>		26° 24'54.5"N, 109°01'15.1"W
SO-HU	2015	<i>Asteraceae</i>	<i>Artemisia absitium</i>		26° 24'54.5"N, 109°01'15.1"W
SO-OB	2015	<i>Asteraceae</i>	<i>Artemisia ludoviciana</i>	+	27°33'33.5" N, 110°05'17.6" W
SO-OB	2015	<i>Asteraceae</i>	<i>Gnaphalium</i> spp	+	27° 08'09.9"N, 109°53'31.7"W
SO-OB	2015	<i>Asteraceae</i>	<i>Helenium mexicanum</i>	+	27° 36'22.5"N, 110°08'02.5"W
SO-NA	2015	<i>Asteraceae</i>	<i>Helianthus annuus</i>	+	26° 86' 23.43"N, 109°68'63.83 W
SO-NA	2015	<i>Asteraceae</i>	<i>Helianthus</i> spp		26° 86' 23.43"N, 109°68'63.83 W
SO-HU	2015	<i>Asteraceae</i>	<i>Perityle microglossa</i>		25°48'42.44" N, 108°13'9.302" W
SO-HU	2015	<i>Asteraceae</i>	<i>Perityle</i> spp	+	26°50'05.9"N, 109°31'51.8"
SO-HU	2015	<i>Asteraceae</i>	<i>Perityle</i> spp	+	26°50'05.9"N, 109°31'51.8"
SO-HU	2015	<i>Asteraceae</i>	<i>Sonchus oleraceus</i>		26° 24'54.5"N, 109°01'15.1"W
SO-NA	2015	<i>Asteraceae</i>	<i>Sonchus oleraceus</i>		26° 86' 23.43"N, 109°68'63.83 W
SO-NA	2015	<i>Asteraceae</i>	<i>Sonchus oleraceus</i>		26° 86' 23.43"N, 109°68'63.83 W
SO-NA	2015	<i>Asteraceae</i>	<i>Sonchus oleraceus</i>		26°96'00.39" N, 109°58'24.36" W
SO-HU	2015	<i>Bignoniaceae</i>	<i>Handroanthus impetiginosus</i>		26° 24'54.5"N, 109°01'15.1"W
SO-HU	2015	<i>Boraginaceae</i>	<i>Heliotropium curassavicum</i>	+	26°47'06.1"N, 109°40'52.8"W
SO-NA	2015	<i>Boraginaceae</i>	<i>Heliotropium curassavicum</i>		26°90'05.02"N, 109°52'28.42" W
SO-NA	2015	<i>Boraginaceae</i>	<i>Heliotropium curassavicum</i>	+	26°90'05.02"N, 109°52'28.42" W
SO-NA	2015	<i>Boraginaceae</i>	<i>Heliotropium curassavicum</i>	+	26°90'05.02"N, 109°52'28.42" W
SO-OB	2015	<i>Boraginaceae</i>	<i>Heliotropium curassavicum</i>	+	27° 08'09.9"N, 109°53'31.7"W
SO-HU	2015	<i>Brassicaceae</i>	<i>Brassica juncea</i>		26° 24'54.5"N, 109°01'15.1"W
SO-RC	2015	<i>Brassicaceae</i>	<i>Diplotaxis muralis</i>		32°25'07.8" N, 114°49'34.7" W
SO-NA	2015	<i>Chenopodiaceae</i>	<i>Chenopodium album</i>	+	26°90'05.02"N, 109°52'28.42" W
SO-NA	2015	<i>Chenopodiaceae</i>	<i>Chenopodium album</i>		26°90'05.02"N, 109°52'28.42" W
SO-NA	2015	<i>Chenopodiaceae</i>	<i>Chenopodium album</i>	+	26° 86' 23.43"N, 109°68'63.83 W
SO-NA	2015	<i>Chenopodiaceae</i>	<i>Chenopodium album</i>	+	26°96'00.39"N, 109°58'24.36" W
SO-NA	2015	<i>Chenopodiaceae</i>	<i>Chenopodium album</i>		26° 86' 23.43"N, 109°68'63.83 W
SO-OB	2015	<i>Chenopodiaceae</i>	<i>Chenopodium berlandieri</i>		27° 08'09.9"N, 109°53'31.7"W
SO-OB	2015	<i>Chenopodiaceae</i>	<i>Chenopodium berlandieri</i>	+	27° 08'09.9"N, 109°53'31.7"W
SO-RC	2015	<i>Chenopodiaceae</i>	<i>Chenopodium berlandieri</i>	+	32°20'06.3" N, 114°53'31.4" W
SO-HU	2015	<i>Chenopodiaceae</i>	<i>Chenopodium</i> spp	+	26° 24'54.5"N, 109°01'15.1"W
SO-HU	2015	<i>Chenopodiaceae</i>	<i>Chenopodium</i> spp		26° 24'54.5"N, 109°01'15.1"W
SO-HU	2015	<i>Convolvulaceae</i>	<i>Convolvulus arvensis</i>	+	26° 24'54.5"N, 109°01'15.1"W
SO-OB	2015	<i>Convolvulaceae</i>	<i>Convolvulus arvensis</i>	+	27° 08'09.9"N, 109°53'31.7"W
SO-HU	2015	<i>Euphorbiaceae</i>	<i>Cnidoscolus</i> spp		26°50'05.9"N, 109°31'51.8"

SO-HU	2015	<i>Euphorbiaceae</i>	<i>Cnidocolus spp</i>	+	26°50'05.9"N, 109°31'51.8"
SO-OB	2015	<i>Euphorbiaceae</i>	<i>Ricinus communis</i>	+	27° 08'09.9"N, 109°53'31.7"W
SO-NA	2015	<i>Fabaceae</i>	<i>Melilotus indica</i>		26°99'98.46"N, 109°52'36.35" W
SO-NA	2015	<i>Fabaceae</i>	<i>Melilotus indica</i>	+	26°96'00.39"N, 109°58'24.36" W
SO-OB	2015	<i>Hydrophyllaceae</i>	<i>Nama jamaicensis</i>	+	27° 36'22.5"N, 110°08'02.5"W
SO-HU	2015	<i>Malvaceae</i>	<i>Abutilon palmeri</i>	+	26° 24'54.5"N, 109°01'15.1"W
SO-HU	2015	<i>Malvaceae</i>	<i>Abutilon palmeri</i>	+	26° 24'54.5"N, 109°01'15.1"W
SO-OB	2015	<i>Malvaceae</i>	<i>Abutilon palmeri</i>	+	27° 36'22.5"N, 110°08'02.5"W
SO-HU	2015	<i>Malvaceae</i>	<i>Abutilon trisulcatum</i>	+	26° 24'54.5"N, 109°01'15.1"W
SO-HU	2015	<i>Malvaceae</i>	<i>Anoda pedunculosa</i>	+	26° 24'54.5"N, 109°01'15.1"W
SO-HU	2015	<i>Malvaceae</i>	<i>Malva parviflora</i>		26° 24'54.5"N, 109°01'15.1"W
SO-NA	2015	<i>Malvaceae</i>	<i>Malva parviflora</i>	+	26°90'05.02"N, 109°52'28.42" W
SO-NA	2015	<i>Malvaceae</i>	<i>Malva parviflora</i>	+	26°90'05.02"N, 109°52'28.42" W
SO-NA	2015	<i>Malvaceae</i>	<i>Malva parviflora</i>	+	26°90'05.02"N, 109°52'28.42" W
SO-NA	2015	<i>Malvaceae</i>	<i>Malva parviflora</i>	+	26° 86' 23.43"N, 109°68'63.83 W
SO-NA	2015	<i>Malvaceae</i>	<i>Malva parviflora</i>	+	26° 86' 23.43"N, 109°68'63.83 W
SO-NA	2015	<i>Malvaceae</i>	<i>Malva parviflora</i>	+	26°96'00.39"N, 109°58'24.36" W
SO-RC	2015	<i>Malvaceae</i>	<i>Malva parviflora</i>	+	32°25'07.8" N, 114°49'34.7" W
SO-NA	2015	<i>Malvaceae</i>	<i>Malvella leprosa</i>	+	26°90'05.02"N, 109°52'28.42" W
SO-NA	2015	<i>Malvaceae</i>	<i>Malvella leprosa</i>		26°90'05.02"N, 109°52'28.42" W
SO-NA	2015	<i>Malvaceae</i>	<i>Malvella leprosa</i>		26°90'05.02"N, 109°52'28.42" W
SO-OB	2015	<i>Malvaceae</i>	<i>Malvella leprosa</i>		27° 08'09.9"N, 109°53'31.7"W
SO-OB	2015	<i>Malvaceae</i>	<i>Sida rhombifolia</i>	+	27° 36'22.5"N, 110°08'02.5"W
SO-HU	2015	<i>Onagraceae</i>	<i>Ludwigia octovalvis</i>		26°50'05.9"N, 109°31'51.8"
SO-HU	2015	<i>Onagraceae</i>	<i>Ludwigia octovalvis</i>	+	26°50'05.9"N, 109°31'51.8"
SO-OB	2015	<i>Papaveraceae</i>	<i>Argemone mexicana</i>	+	27° 36'22.5"N, 110°08'02.5"W
SO-HU	2015	<i>Polygonaceae</i>	<i>Antigonon leptopus</i>	+	26° 24'54.5"N, 109°01'15.1"W
SO-NA	2015	<i>Polygonaceae</i>	<i>Rumex crispo</i>		26°90'05.02"N, 109°52'28.42" W
SO-NA	2015	<i>Polygonaceae</i>	<i>Rumex crispo</i>	+	26°90'05.02"N, 109°52'28.42" W
SO-NA	2015	<i>Polygonaceae</i>	<i>Rumex crispo</i>	+	26°90'05.02"N, 109°52'28.42" W
SO-OB	2015	<i>Polygonaceae</i>	<i>Rumex crispo</i>		27° 08'09.9"N, 109°53'31.7"W
SO-HU	2015	<i>Rhamnaceae</i>	<i>Gouania lupuloides</i>	+	26° 24'54.5"N, 109°01'15.1"W
SO-HU	2015	<i>Solanaceae</i>	<i>Datura stramonium</i>	+	26°47'06.1"N, 109°40'52.8"W
SO-HU	2015	<i>Solanaceae</i>	<i>Nicotiana glauca</i>	+	26°50'05.9"N, 109°31'51.8"
SO-HU	2015	<i>Solanaceae</i>	<i>Nicotiana glauca</i>		26°50'05.9"N, 109°31'51.8"
SO-HU	2015	<i>Solanaceae</i>	<i>Nicotiana glauca</i>		26°50'05.9"N, 109°31'51.8"
SO-HU	2015	<i>Solanaceae</i>	<i>Nicotiana glauca</i>	+	26°47'06.1"N, 109°40'52.8"W
SO-OB	2015	<i>Solanaceae</i>	<i>Nicotiana glauca</i>	+	27° 08'09.9"N, 109°53'31.7"W
SO-HU	2015	<i>Solanaceae</i>	<i>Nicotiana plumbaginifolia</i>	+	26°50'05.9"N, 109°31'51.8"
SO-HU	2015	<i>Solanaceae</i>	<i>Nicotina plumbaginifolia</i>	+	26° 24'54.5"N, 109°01'15.1"W

SO-OB	2015	<i>Solanaceae</i>	<i>Nicotina plumbaginifolia</i>	+	27° 36'22.5"N, 110°08'02.5"W
SO-HU	2015	<i>Solanaceae</i>	<i>Solanum lycopersicum</i>	+	26°47'06.1"N, 109°40'52.8"W
SO-HU	2015	<i>Solanaceae</i>	<i>Solanum nigrescens</i>	+	26° 24'54.5"N, 109°01'15.1"W
SO-HU	2015	<i>Solanaceae</i>	<i>Solanum pseudocapsicum</i>		26° 24'54.5"N, 109°01'15.1"W
SO-HU	2015	<i>Solanaceae</i>	<i>Solanum spp</i>	+	26°47'06.1"N, 109°40'52.8"W
SO-HU	2015	<i>Solanaceae</i>	<i>Solanum verbascifolium</i>	+	26°50'05.9"N, 109°31'51.8"
SI-CO	2012	<i>Amaranthaceae</i>	<i>Amaranthus palmeri</i>		23°17'13.489"N, 106°4'51.193" W
SI-GV	2012	<i>Amaranthaceae</i>	<i>Amaranthus palmeri</i>		25°44'59.049" N, 108°39'46.189 W
SI-GV	2012	<i>Amaranthaceae</i>	<i>Amaranthus palmeri</i>	+	25°43'49.164" N, 108°24'27.845" W
SI-SL	2012	<i>Amaranthaceae</i>	<i>Amaranthus palmeri</i>		25°49'29.732"N, 108°14'4.196" W
SI-SL	2012	<i>Apocynaceae</i>	<i>Stemmadenia palmeri</i>		25°48'42.44" N, 108°13'9.302" W
SI-CO	2012	<i>Asclepiadiaceae</i>	<i>Sarcostema spp</i>		23°17'13.489"N, 106°4'51.193" W
SI-SL	2012	<i>Asteraceae</i>	<i>Artemisia ludoviciana</i>		25°48'42.44" N, 108°13'9.302" W
SI-SL	2012	<i>Asteraceae</i>	<i>Franseria ambrosioides</i>		25°48'42.44" N, 108°13'9.302" W
SI-GV	2012	<i>Asteraceae</i>	<i>Helianthus annuus</i>		25°43'49.164" N, 108°24'27.845" W
SI-GV	2014	<i>Asteraceae</i>	<i>Parthenium hysterophorus</i>		20°30'39.585" N, 108°30'39.252" W
SI-GV	2014	<i>Asteraceae</i>	<i>Parthenium hysterophorus</i>		20°30'39.585" N, 108°30'39.252" W
SI-GV	2014	<i>Asteraceae</i>	<i>Parthenium hysterophorus</i>		20°30'39.585" N, 108°30'39.252" W
SI-GV	2014	<i>Asteraceae</i>	<i>Parthenium hysterophorus</i>		20°30'39.585" N, 108°30'39.252" W
SI-GV	2012	<i>Asteraceae</i>	<i>Parthenium hysterophorus</i>		25°43'49.164" N, 108°24'27.845" W
SI-GV	2012	<i>Asteraceae</i>	<i>Parthenium hysterophorus</i>	+	25°43'49.164" N, 108°24'27.845" W
SI-GV	2012	<i>Asteraceae</i>	<i>Parthenium hysterophorus</i>		25°43'49.164" N, 108°24'27.845" W
SI-GV	2012	<i>Asteraceae</i>	<i>Parthenium hysterophorus</i>	+	25°43'49.164" N, 108°24'27.845" W
SI-GV	2012	<i>Asteraceae</i>	<i>Parthenium hysterophorus</i>		25°43'49.164" N, 108°24'27.845" W
SI-GV	2012	<i>Asteraceae</i>	<i>Parthenium hysterophorus</i>	+	25°43'49.164" N, 108°24'27.845" W
SI-GV	2012	<i>Asteraceae</i>	<i>Parthenium hysterophorus</i>	+	25°43'49.164" N, 108°24'27.845" W
SI-GV	2012	<i>Asteraceae</i>	<i>Parthenium hysterophorus</i>	+	25°43'49.164" N, 108°24'27.845" W
SI-MO	2012	<i>Asteraceae</i>	<i>Parthenium hysterophorus</i>		25°28'55.277" N, 107°54'14.071" W
SI-RO	2012	<i>Asteraceae</i>	<i>Parthenium hysterophorus</i>	+	23°0'8.665"N, 105°51'26.246" W
SI-RO	2012	<i>Asteraceae</i>	<i>Parthenium hysterophorus</i>		23°0'8.665"N, 105°51'26.246" W
SI-GV	2012	<i>Asteraceae</i>	<i>Porophyllum punctatum</i>	+	25°43'49.164" N, 108°24'27.845" W
SI-GV	2012	<i>Asteraceae</i>	<i>Sonchus oleraceus</i>	+	25°43'49.164" N, 108°24'27.845" W
SI-GV	2012	<i>Asteraceae</i>	<i>Sonchus oleraceus</i>		25°43'49.164" N, 108°24'27.845" W
SI-SL	2012	<i>Asteraceae</i>	<i>Sonchus oleraceus</i>		25°48'42.44" N, 108°13'9.302" W
SI-GV	2012	<i>Asteraceae</i>	<i>Xanthium strumarium</i>	+	25°43'49.164" N, 108°24'27.845" W
SI-MO	2012	<i>Bignoniaceae</i>	<i>Amphilophium paniculatum</i>		25°28'55.277" N, 107°54'14.071" W
SI-GV	2015	<i>Brassicaceae</i>	<i>Diplotaxis muralis</i>	+	32°25'07.8" N, 114°49'34.7" W
SI-SL	2012	<i>Caesalpiniaceae</i>	<i>Caesalpinia platyloba</i>	+	25°48'42.44" N, 108°13'9.302" W
SI-CO	2012	<i>Capparaceae</i>	<i>Polinesia dodecandra</i>	+	23°17'13.489"N, 106°4'51.193" W
SI-SL	2012	<i>Capparaceae</i>	<i>Polinesia dodecandra</i>		25°49'29.732"N, 108°14'4.196" W
SI-GV	2012	<i>Convolvulaceae</i>	<i>Ipomoea purpurea</i>		25°43'49.164" N, 108°24'27.845" W

SI-CO	2012	<i>Convolvulaceae</i>	<i>Ipomoea</i> spp	+	23°17'13.489"N, 106°4'51.193" W
SI-GV	2012	<i>Convolvulaceae</i>	<i>Ipomoea</i> spp	+	25°44'59.049" N, 108°39'46.189 W
SI-GV	2012	<i>Convolvulaceae</i>	<i>Ipomoea</i> spp	+	25°44'59.049" N, 108°39'46.189 W
SI-SL	2012	<i>Cucurbitaceae</i>	<i>Citrullus lanatus</i>		25°48'42.44" N, 108°13'9.302" W
SI-GV	2012	<i>Cucurbitaceae</i>	<i>Cucumis anguria</i>		25°44'59.049" N, 108°39'46.189 W
SI-GV	2012	<i>Cucurbitaceae</i>	<i>Cucumis dipsaceus</i>	+	25°43'49.164" N, 108°24'27.845" W
SI-GV	2012	<i>Cucurbitaceae</i>	<i>Momardica charantia</i>	+	25°43'49.164" N, 108°24'27.845" W
SI-MO	2012	<i>Cucurbitaceae</i>	<i>Momardica charantia</i>		25°28'55.277" N, 107°54'14.071" W
SI-MO	2012	<i>Cucurbitaceae</i>	<i>Momardica charantia</i>		25°28'55.277" N, 107°54'14.071" W
SI-CO	2012	<i>Euphorbiaceae</i>	<i>Acalypha polystachya</i>		23°17'13.489"N, 106°4'51.193" W
SI-GV	2012	<i>Euphorbiaceae</i>	<i>Acalypha polystachya</i>	+	25°43'49.164" N, 108°24'27.845" W
SI-MO	2012	<i>Euphorbiaceae</i>	<i>Acalypha polystachya</i>		25°28'55.277" N, 107°54'14.071" W
SI-MO	2012	<i>Euphorbiaceae</i>	<i>Acalypha polystachya</i>		25°28'55.277" N, 107°54'14.071" W
SI-MO	2012	<i>Euphorbiaceae</i>	<i>Croton</i> spp		25°28'55.277" N, 107°54'14.071" W
SI-MO	2012	<i>Euphorbiaceae</i>	<i>Euphorbia heterophylla</i>		25°28'55.277" N, 107°54'14.071" W
SI-RO	2014	<i>Euphorbiaceae</i>	<i>Euphorbia heterophylla</i>	+	23°0'8.665"N, 105°51'26.246" W
SI-RO	2014	<i>Euphorbiaceae</i>	<i>Euphorbia heterophylla</i>	+	23°0'8.665"N, 105°51'26.246" W
SI-RO	2014	<i>Euphorbiaceae</i>	<i>Euphorbia heterophylla</i>	+	23°0'8.665"N, 105°51'26.246" W
SI-RO	2015	<i>Euphorbiaceae</i>	<i>Euphorbia heterophylla</i>		23°0'8.665"N, 105°51'26.246" W
SI-RO	2015	<i>Euphorbiaceae</i>	<i>Euphorbia heterophylla</i>		23°0'8.665"N, 105°51'26.246" W
SI-MO	2012	<i>Euphorbiaceae</i>	<i>Manihot</i> spp	+	25°28'55.277" N, 107°54'14.071" W
SI-GV	2014	<i>Euphorbiaceae</i>	<i>Ricinus communis</i>		20°30'39.585" N, 108°30'39.252" W
SI-GV	2012	<i>Euphorbiaceae</i>	<i>Ricinus communis</i>		25°43'49.164" N, 108°24'27.845" W
SI-SL	2012	<i>Euphorbiaceae</i>	<i>Ricinus communis</i>		25°48'42.44" N, 108°13'9.302" W
SI-GV	2016	<i>Fabaceae</i>	<i>Crotalaria juncea</i>	+	25°43'01.45" N, 108°19'42.45 W
SI-GV	2016	<i>Fabaceae</i>	<i>Crotalaria juncea</i>	+	25°43'01.45" N, 108°19'42.45 W
SI-GV	2016	<i>Fabaceae</i>	<i>Crotalaria juncea</i>	+	25°43'01.45" N, 108°19'42.45 W
SI-GV	2012	<i>Fabaceae</i>	<i>Lonchocarpus lanceolatus</i>	+	25°43'01.45" N, 108°19'42.45 W
SI-ES	2016	<i>Fabaceae</i>	<i>Macroptilium atropurpureum</i>		23°00'08.66 N, 105°51'26.23 W
SI-ES	2016	<i>Fabaceae</i>	<i>Macroptilium atropurpureum</i>		23°00'08.66 N, 105°51'26.23 W
SI-ES	2016	<i>Fabaceae</i>	<i>Macroptilium atropurpureum</i>		23°00'08.66 N, 105°51'26.23 W
SI-RO	2016	<i>Fabaceae</i>	<i>Macroptilium atropurpureum</i>	+	23°00'08.66 N, 105°51'26.23 W
SI-RO	2016	<i>Fabaceae</i>	<i>Macroptilium atropurpureum</i>	+	23°00'08.66 N, 105°51'26.23 W
SI-RO	2016	<i>Fabaceae</i>	<i>Macroptilium atropurpureum</i>	+	23°00'08.66 N, 105°51'26.23 W
SI-RO	2015	<i>Fabaceae</i>	<i>Macroptilium atropurpureum</i>		23°00'08.66 N, 105°51'26.23 W
SI-RO	2016	<i>Fabaceae</i>	<i>Macroptilium atropurpureum</i>	+	23°00'08.66 N, 105°51'26.23 W
SI-GV	2015	<i>Fabaceae</i>	<i>Melilotus indicus</i>	+	23°00'08.66 N, 105°51'26.23 W
SI-GV	2016	<i>Fabaceae</i>	<i>Melilotus indicus</i>	+	23°00'08.66 N, 105°51'26.23 W
SI-AB	2016	<i>Fabaceae</i>	<i>Rhynchosia minima</i>		22°34'27.113" N, 108°32'30.951" W
SI-AB	2016	<i>Fabaceae</i>	<i>Rhynchosia minima</i>		22°34'27.113" N, 108°32'30.951" W



SI-AB	2016	Fabaceae	<i>Rhynchosia minima</i>	+	22°34'27.113" N, 108°32'30.951" W
SI-AB	2016	Fabaceae	<i>Rhynchosia minima</i>	+	22°34'27.113" N, 108°32'30.951" W
SI-AB	2016	Fabaceae	<i>Rhynchosia minima</i>	+	22°34'27.113" N, 108°32'30.951" W
SI-AC	2016	Fabaceae	<i>Rhynchosia minima</i>	+	23°09'39.09" N, 106°05'26.09" W
SI-GV	2012	Fabaceae	<i>Rhynchosia minima</i>	+	25°44'59.049" N, 108°39'46.188" W
SI-GV	2016	Fabaceae	<i>Rhynchosia minima</i>		25°32'31.16" N, 108°32'46.154" W
SI-GV	2016	Fabaceae	<i>Rhynchosia minima</i>		25°32'31.16" N, 108°32'46.154" W
SI-GV	2016	Fabaceae	<i>Rhynchosia minima</i>	+	25°32'31.16" N, 108°32'46.154" W
SI-GV	2016	Fabaceae	<i>Rhynchosia minima</i>	+	25°32'31.16" N, 108°32'46.154" W
SI-GV	2016	Fabaceae	<i>Rhynchosia minima</i>	+	25°32'31.16" N, 108°32'46.154" W
SI-GV	2014	Fabaceae	<i>Rhynchosia minima</i>	+	25°32'31.16" N, 108°32'46.154" W
SI-GV	2014	Fabaceae	<i>Rhynchosia minima</i>	+	25°32'31.16" N, 108°32'46.154" W
SI-GV	2014	Fabaceae	<i>Rhynchosia minima</i>	+	25°32'31.16" N, 108°32'46.154" W
SI-PC	2016	Fabaceae	<i>Rhynchosia minima</i>	+	23°50'37.66" N, 107°00'33.67" W
SI-PC	2016	Fabaceae	<i>Rhynchosia minima</i>	+	23°50'37.66" N, 107°00'33.67" W
SI-PC	2016	Fabaceae	<i>Rhynchosia minima</i>		23°50'37.66" N, 107°00'33.67" W
SI-PC	2016	Fabaceae	<i>Rhynchosia minima</i>	+	23°50'37.66" N, 107°00'33.67" W
SI-PC	2016	Fabaceae	<i>Rhynchosia minima</i>	+	23°50'37.66" N, 107°00'33.67" W
SI-PC	2016	Fabaceae	<i>Rhynchosia minima</i>	+	23°50'37.66" N, 107°00'33.67" W
SI-RO	2016	Fabaceae	<i>Rhynchosia minima</i>		23°0'8.665"N, 105°51'26.246" W
SI-RO	2014	Fabaceae	<i>Rhynchosia minima</i>	+	23°00'08.66 N, 105°51'26.24 W
SI-RO	2014	Fabaceae	<i>Rhynchosia minima</i>		23°00'08.66 N, 105°51'26.24 W
SI-AC	2016	Fabaceae	<i>Rhynchosia precatorea</i>	+	23°09'39.09" N, 106°05'26.09" W
SI-AC	2016	Fabaceae	<i>Rhynchosia precatorea</i>		23°09'39.09" N, 106°05'26.09" W
SI-AC	2016	Fabaceae	<i>Rhynchosia precatorea</i>	+	23°09'39.09" N, 106°05'26.09" W
SI-AC	2016	Fabaceae	<i>Rhynchosia precatorea</i>	+	23°09'39.09" N, 106°05'26.09" W
SI-AC	2016	Fabaceae	<i>Rhynchosia precatorea</i>	+	23°09'39.09" N, 106°05'26.09" W
SI-AC	2016	Fabaceae	<i>Rhynchosia precatorea</i>	+	23°09'39.09" N, 106°05'26.09" W
SI-AC	2016	Fabaceae	<i>Rhynchosia precatorea</i>	+	23°09'39.09" N, 106°05'26.09" W
SI-AC	2016	Fabaceae	<i>Rhynchosia precatorea</i>		23°09'39.09" N, 106°05'26.09" W
SI-ES	2016	Fabaceae	<i>Rhynchosia precatorea</i>	+	22°58'7.266"N, 105°54'34.657"W
SI-ES	2016	Fabaceae	<i>Rhynchosia precatorea</i>		22°58'7.266"N, 105°54'34.657"W
SI-ES	2016	Fabaceae	<i>Rhynchosia precatorea</i>	+	22°58'7.266"N, 105°54'34.657"W
SI-ES	2016	Fabaceae	<i>Rhynchosia precatorea</i>		22°58'7.266"N, 105°54'34.657"W
SI-ES	2016	Fabaceae	<i>Rhynchosia precatorea</i>		22°58'7.266"N, 105°54'34.657"W
SI-RO	2016	Fabaceae	<i>Rhynchosia precatorea</i>	+	23°00'08.66 N, 105°51'26.24 W
SI-RO	2016	Fabaceae	<i>Rhynchosia precatorea</i>		23°00'08.66 N, 105°51'26.24 W
SI-RO	2016	Fabaceae	<i>Rhynchosia precatorea</i>	+	23°00'08.66 N, 105°51'26.24 W
SI-RO	2016	Fabaceae	<i>Rhynchosia precatorea</i>	+	23°00'08.66 N, 105°51'26.24 W
SI-RO	2014	Fabaceae	<i>Rhynchosia precatorea</i>		23°00'08.66 N, 105°51'26.24 W

SI-RO	2016	<i>Fabaceae</i>	<i>Rhynchosia precatória</i>		23°00'08.66 N, 105°51'26.24 W
SI-AC	2016	<i>Fabaceae</i>	<i>Rhynchosia minima</i>	+	23°09'39.09" N, 106°05'26.09" W
SI-AC	2016	<i>Fabaceae</i>	<i>Rhynchosia minima</i>	+	23°09'39.09" N, 106°05'26.09" W
SI-AC	2016	<i>Fabaceae</i>	<i>Rhynchosia minima</i>	+	23°09'39.09" N, 106°05'26.09" W
SI-AC	2016	<i>Fabaceae</i>	<i>Rhynchosia minima</i>	+	23°09'39.09" N, 106°05'26.09" W
SI-AC	2016	<i>Fabaceae</i>	<i>Rhynchosia minima</i>	+	23°09'39.09" N, 106°05'26.09" W
SI-PC	2016	<i>Fabaceae</i>	<i>Rhynchosia minima</i>	+	23°50'37.66" N, 107°00'33.67" W
SI-PC	2016	<i>Fabaceae</i>	<i>Rhynchosia minima</i>	+	23°50'37.66" N, 107°00'33.67" W
SI-RO	2016	<i>Fabaceae</i>	<i>Rhynchosia minima</i>	+	23°00'08.66 N, 105°51'26.24 W
SI-RO	2016	<i>Fabaceae</i>	<i>Rhynchosia minima</i>	+	23°00'08.66 N, 105°51'26.24 W
SI-RO	2016	<i>Fabaceae</i>	<i>Rhynchosia minima</i>	+	23°00'08.66 N, 105°51'26.24 W
SI-RO	2016	<i>Fabaceae</i>	<i>Rhynchosia minima</i>	+	23°00'08.66 N, 105°51'26.24 W
SI-RO	2016	<i>Fabaceae</i>	<i>Senna uniflora</i>	+	23°00'08.66 N, 105°51'26.24 W
SI-RO	2014	<i>Fabaceae</i>	<i>Senna uniflora</i>	+	23°00'08.66 N, 105°51'26.24 W
SI-RO	2015	<i>Fabaceae</i>	<i>Senna uniflora</i>		23°00'08.66 N, 105°51'26.24 W
SI-SL	2012	<i>Fabaceae</i>	<i>Senna uniflora</i>		25°48'42.44" N, 108°13'9.302" W
SI-SL	2012	<i>Malpigiaceae</i>	<i>Mascagnia macroptera</i>		25°48'42.44" N, 108°13'9.302" W
SI-SL	2012	<i>Malpigiaceae</i>	<i>Mascagnia macroptera</i>		25°48'42.44" N, 108°13'9.302" W
SI-GV	2012	<i>Malvaceae</i>	<i>Abutilon palmeri</i>	+	25°43'49.164" N, 108°24'27.845" W
SI-GV	2012	<i>Malvaceae</i>	<i>Abutilon palmeri</i>		25°43'49.164" N, 108°24'27.845" W
SI-SL	2012	<i>Malvaceae</i>	<i>Abutilon palmeri</i>		25°48'42.44" N, 108°13'9.302" W
SI-GV	2014	<i>Malvaceae</i>	<i>Abutilon trisulcatun</i>	+	20°30'39.585" N, 108°30'39.252" W
SI-GV	2014	<i>Malvaceae</i>	<i>Abutilon trisulcatun</i>		20°30'39.585" N, 108°30'39.252" W
SI-GV	2014	<i>Malvaceae</i>	<i>Abutilon trisulcatun</i>	+	20°30'39.585" N, 108°30'39.252" W
SI-GV	2014	<i>Malvaceae</i>	<i>Abutilon trisulcatun</i>	+	20°30'39.585" N, 108°30'39.252" W
SI-GV	2012	<i>Malvaceae</i>	<i>Abutilon trisulcatun</i>	+	25°43'49.164" N, 108°24'27.845" W
SI-MO	2012	<i>Malvaceae</i>	<i>Abutilon trisulcatun</i>	+	25°28'55.277" N, 107°54'14.071" W
SI-MO	2012	<i>Malvaceae</i>	<i>Abutilon trisulcatun</i>	+	25°28'55.277" N, 107°54'14.071" W
SI-MO	2012	<i>Malvaceae</i>	<i>Abutilon trisulcatun</i>		25°28'55.277" N, 107°54'14.071" W
SI-MO	2012	<i>Malvaceae</i>	<i>Abutilon trisulcatun</i>		25°28'55.277" N, 107°54'14.071" W
SI-RO	2014	<i>Malvaceae</i>	<i>Abutilon trisulcatun</i>	+	23°0'8.665"N, 105°51'26.246" W
SI-RO	2015	<i>Malvaceae</i>	<i>Abutilon trisulcatun</i>		23°0'8.665"N, 105°51'26.246" W
SI-CO	2012	<i>Malvaceae</i>	<i>Anoda pentaschista</i>	+	23°17'13.489"N, 106°4'51.193" W
SI-GV	2012	<i>Malvaceae</i>	<i>Herisantia crispa</i>	+	25°43'49.164" N, 108°24'27.845" W
SI-RO	2014	<i>Malvaceae</i>	<i>Herisantia crispa</i>	+	23°0'8.665"N, 105°51'26.246" W
SI-GV	2012	<i>Malvaceae</i>	<i>Kosteletzkya depressa</i>	+	25°43'49.164" N, 108°24'27.845" W
SI-GV	2012	<i>Malvaceae</i>	<i>Kosteletzkya depressa</i>	+	25°43'49.164" N, 108°24'27.845" W
SI-GV	2014	<i>Malvaceae</i>	<i>Melochia piramydata</i>	+	20°30'39.585" N, 108°30'39.252" W
SI-GV	2014	<i>Malvaceae</i>	<i>Melochia piramydata</i>	+	20°30'39.585" N, 108°30'39.252" W

SI-GV	2014	Malvaceae	Melochia piramydata	+	20°30'39.585" N, 108°30'39.252" W
SI-GV	2014	Malvaceae	Melochia piramydata	+	20°30'39.585" N, 108°30'39.252" W
SI-RO	2014	Malvaceae	Melochia piramydata	+	23°0'8.665"N, 105°51'26.246" W
SI-GV	2014	Malvaceae	Sida acuta		20°30'39.585" N, 108°30'39.252" W
SI-GV	2014	Malvaceae	Sida acuta		20°30'39.585" N, 108°30'39.252" W
SI-RO	2014	Malvaceae	Sida acuta	+	23°0'8.665"N, 105°51'26.246" W
SI-RO	2014	Malvaceae	Sida acuta	+	23°0'8.665"N, 105°51'26.246" W
SI-RO	2015	Malvaceae	Sida acuta		23°0'8.665"N, 105°51'26.246" W
SI-MO	2012	Malvaceae	Sidastrum lodiensis	+	25°28'55.277" N, 107°54'14.071" W
SI-MO	2012	Malvaceae	Sidastrum lodiensis		25°28'55.277" N, 107°54'14.071" W
SI-MO	2012	Malvaceae	Sidastrum lodiensis		25°28'55.277" N, 107°54'14.071" W
SI-GV	2012	Menispermaceae	Coccolus diversifolius	+	25°43'49.164" N, 108°24'27.845" W
SI-MO	2012	Nyctaginaceae	Boerhavia spp	+	25°28'55.277" N, 107°54'14.071" W
SI-GV	2012	Nyctaginaceae	Salpianthus macrodonthus	+	25°43'49.164" N, 108°24'27.845" W
SI-GV	2012	Onagraceae	Ludwigia erecta		25°44'59.049" N, 108°39'46.189 W
SI-GV	2012	Onagraceae	Ludwigia octovalvis		25°44'59.049" N, 108°39'46.189 W
SI-CO	2012	Pedaliaceae	Matynia annua	+	23°17'13.489"N, 106°4'51.193" W
SI-GV	2012	Portulacaceae	Portulaca oleraceae	+	25°44'59.049" N, 108°39'46.189 W
SI-GV	2012	Portulacaceae	Portulaca oleraceae	+	25°48'42.44" N, 108°13'9.302" W
SI-GV	2012	Portulacaceae	Portulaca oleraceae	+	25°48'42.44" N, 108°13'9.302" W
SI-SL	2012	Rhamnaceae	Karwinskia humboldtiana	+	25°48'42.44" N, 108°13'9.302" W
SI-CO	2012	Rubiaceae	Borreria laevis		23°17'13.489"N, 106°4'51.193" W
SI-GV	2012	Sapindaceae	Paullinia fuscescens	+	25°43'49.164" N, 108°24'27.845" W
SI-MO	2012	Solanaceae	Datura discolor	+	25°28'55.277" N, 107°54'14.071" W
SI-MO	2012	Solanaceae	Datura discolor	+	25°28'55.277" N, 107°54'14.071" W
SI-SL	2012	Solanaceae	Datura inoxia	+	25°48'42.44" N, 108°13'9.302" W
SI-GV	2012	Solanaceae	Datura reburra	+	25°43'49.164" N, 108°24'27.845" W
SI-GV	2012	Solanaceae	Datura stramonium	+	25°44'59.049" N, 108°39'46.189 W
SI-GV	2014	Solanaceae	Datura stramonium	+	20°30'39.585" N, 108°30'39.252" W
SI-GV	2014	Solanaceae	Datura stramonium	+	20°30'39.585" N, 108°30'39.252" W
SI-GV	2014	Solanaceae	Datura stramonium	+	20°30'39.585" N, 108°30'39.252" W
SI-GV	2014	Solanaceae	Datura stramonium	+	20°30'39.585" N, 108°30'39.252" W
SI-GV	2012	Solanaceae	Nicotiana glauca	+	25°44'59.049" N, 108°39'46.189 W
SI-GV	2012	Solanaceae	Nicotiana glauca	+	25°43'49.164" N, 108°24'27.845" W
SI-RO	2014	Solanaceae	Physalis acutifolia	+	23°0'8.665"N, 105°51'26.246" W
SI-MO	2012	Solanaceae	Physalis Angulata		25°28'55.277" N, 107°54'14.071" W
SI-GV	2012	Solanaceae	Solanum americanum	+	25°43'49.164" N, 108°24'27.845" W
SI-CO	2012	Solanaceae	Solanum nigrescens		23°17'13.489"N, 106°4'51.193" W
SI-GV	2012	Solanaceae	Solanum nigrescens	+	25°43'49.164" N, 108°24'27.845" W
SI-MO	2012	Solanaceae	Solanum nigrescens		25°28'55.277" N, 107°54'14.071" W

SI-MO	2012	<i>Solanaceae</i>	<i>Solanum tridynamum</i>	+	25°28'55.277" N, 107°54'14.071" W
SI-MO	2012	<i>Solanaceae</i>	<i>Solanum tridynamum</i>		25°28'55.277" N, 107°54'14.071" W
SI-SL	2012	<i>Solanaceae</i>	<i>Solanum tridynamum</i>	+	25°48'42.44" N, 108°13'9.302" W
SI-SL	2012	<i>Solanaceae</i>	<i>Solanum tridynamum</i>	+	25°48'42.44" N, 108°13'9.302" W
SI-SL	2012	<i>Solanaceae</i>	<i>Solanum tridynamum</i>	+	25°48'42.44" N, 108°13'9.302" W
SI-CO	2012	<i>Sterculiaceae</i>	<i>Melochia piramydata</i>		23°17'13.489"N, 106°4'51.193" W
SI-CO	2012	<i>Sterculiaceae</i>	<i>Waltheria americana</i>	+	23°17'13.489"N, 106°4'51.193" W
SI-GV	2012	<i>Verbenaceae</i>	<i>Verbenaceae spp</i>	+	25°43'49.164" N, 108°24'27.845" W
SI-GV	2012	<i>Verbenaceae</i>	<i>Verbenaceae spp</i>		25°43'49.164" N, 108°24'27.845" W
SI-MO	2012	<i>Vitaceae</i>	<i>Vitaceae spp</i>	+	25°28'55.277" N, 107°54'14.071" W
CN-SM	2014	<i>Amaranthaceae</i>	<i>Amaranthus hybridus</i>	+	21°20'35.76" N, 104°40'15.124" W
CN-SM	2014	<i>Amaranthaceae</i>	<i>Amaranthus retroflexus</i>		21°20'35.76" N, 104°40'15.124" W
CN-TE	2014	<i>Amaranthaceae</i>	<i>Amaranthus spinosus</i>		18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	<i>Amaranthaceae</i>	<i>Amaranthus spinosus</i>		18°50'53.07" N, 103°49'54.892" W
CN-SM	2014	<i>Asteraceae</i>	<i>Cosmos sulphureus</i>	+	21°20'35.76" N, 104°40'15.124" W
CN-SM	2014	<i>Asteraceae</i>	<i>Cosmos sulphureus</i>	+	21°20'35.76" N, 104°40'15.124" W
CN-TE	2014	<i>Asteraceae</i>	<i>Erigeron longipes</i>		18°50'53.07" N, 103°49'54.892" W
CN-SM	2014	<i>Asteraceae</i>	<i>Melampodium rosei</i>	+	21°20'35.76" N, 104°40'15.124" W
CN-TE	2014	<i>Commelinaceae</i>	<i>Commelina diffusa</i>		18°50'53.07" N, 103°49'54.892" W
CN-SM	2014	<i>Convolvulaceae</i>	<i>Ipomoea hederaceae</i>		21°20'35.76" N, 104°40'15.124" W
CN-SM	2014	<i>Convolvulaceae</i>	<i>Ipomoea spp.</i>		21°20'35.76" N, 104°40'15.124" W
CN-SM	2014	<i>Convolvulaceae</i>	<i>Ipomoea spp.</i>	+	21°20'35.76" N, 104°40'15.124" W
CN-TE	2014	<i>Convolvulaceae</i>	<i>Merremia quinquefolia</i>		18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	<i>Cucurbitaceae</i>	<i>Momardica charantia</i>		18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	<i>Cucurbitaceae</i>	<i>Momardica charantia</i>		18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	<i>Cucurbitaceae</i>	<i>Momardica charantia</i>	+	18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	<i>Euphorbiaceae</i>	<i>Acalypha seetosa</i>		18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	<i>Euphorbiaceae</i>	<i>Euphorbia hypericifolia</i>		18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	<i>Fabaceae</i>	<i>Rhynchosia spp</i>		18°50'53.07" N, 103°49'54.892" W
CN-SM	2014	<i>Hydrophyllaceae</i>	<i>Nama hispida</i>		21°20'35.76" N, 104°40'15.124" W
CN-TE	2014	<i>Malvaceae</i>	<i>Herisantia crispa</i>		18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	<i>Malvaceae</i>	<i>Herisantia crispa</i>	+	18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	<i>Malvaceae</i>	<i>Herisantia crispa</i>		18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	<i>Malvaceae</i>	<i>Herisantia crispa</i>	+	18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	<i>Malvaceae</i>	<i>Herisantia crispa</i>	+	18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	<i>Malvaceae</i>	<i>Herisantia crispa</i>	+	18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	<i>Malvaceae</i>	<i>Herisantia crispa</i>	+	18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	<i>Malvaceae</i>	<i>Herisantia crispa</i>	+	18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	<i>Malvaceae</i>	<i>Malvastrum coromandelianum</i>	+	18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	<i>Malvaceae</i>	<i>Malvastrum coromandelianum</i>	+	18°50'53.07" N, 103°49'54.892" W

CN-TE	2014	Malvaceae	<i>Malvastrum coromandelianum</i>	+	18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	Malvaceae	<i>Sida acuta</i>	+	18°50'53.07" N, 103°49'54.892" W
CN-SM	2014	Malvaceae	<i>Sida collina</i>		21°20'35.76" N, 104°40'15.124" W
CN-TE	2014	Nyctaginaceae	<i>Boerhavia coccinea</i>		18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	Nyctaginaceae	<i>Boerhavia coccinea</i>	+	18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	Nyctaginaceae	<i>Boerhavia coccinea</i>	+	18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	Nyctaginaceae	<i>Boerhavia coccinea</i>	+	18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	Nyctaginaceae	<i>Boerhavia coccinea</i>	+	18°50'53.07" N, 103°49'54.892" W
CN-SM	2014	Portulacaceae	<i>Portulaca oleraceae</i>		21°20'35.76" N, 104°40'15.124" W
CN-TE	2014	Portulacaceae	<i>Portulaca oleraceae</i>	+	18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	Rubiaceae	<i>Galium mexicanum</i>	+	18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	Rubiaceae	<i>Richardia scabia</i>	+	18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	Solanaceae	<i>Solanum nigrescens</i>		18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	Solanaceae	<i>Solanum nigrescens</i>		18°50'53.07" N, 103°49'54.892" W
CN-TE	2014	Verbenaceae	<i>Priva iappulaceae</i>	+	18°50'53.07" N, 103°49'54.892" W
CN-SM	2014	Verbenaceae	<i>Verbenaceae spp</i>	+	21°20'35.76" N, 104°40'15.124" W
CN-TE	2014	Vitaceae	<i>Cissus sicyoides</i>		18°50'53.07" N, 103°49'54.892" W
CD-LG	2015	Amaranthaceae	<i>Amaranthus spp</i>	+	25°29'28.04" N, 103°41'12.80 W
CD-LG	2015	Amaranthaceae	<i>Amaranthus spp</i>	+	25°29'28.04" N, 103°41'12.80 W
CD-PO	2016	Amaranthaceae	<i>Amaranthus spp</i>	+	24°00'37.45" N, 104°07'31.73 W
CD-PO	2016	Amaranthaceae	<i>Amaranthus spp</i>	+	24°00'37.45" N, 104°07'31.73 W
CD-PO	2016	Amaranthaceae	<i>Amaranthus spp</i>	+	24°00'37.45" N, 104°07'31.73 W
CD-TO	2015	Amaranthaceae	<i>Amaranthus spp</i>		26°04'52.61" N, 102°55'30.01" W
CD-LG	2015	Asteraceae	<i>Artemisia absitium</i>		25°29'28.04" N, 103°41'12.80 W
CD-TL	2015	Asteraceae	<i>Artemisia absitium</i>		25°47'14.25" N, 103°21'10.37" W
CD-TO	2015	Asteraceae	<i>Bahia absinthifolia</i>		25°32'46.79" N, 103°16'55.40" W
CD-TO	2015	Asteraceae	<i>Bahia absinthifolia</i>		25°32'46.79" N, 103°16'55.40" W
CD-LG	2015	Asteraceae	<i>Helianthus spp</i>		25°29'28.04" N, 103°41'12.80 W
CD-LG	2015	Asteraceae	<i>Helianthus spp</i>		25°29'28.04" N, 103°41'12.80 W
CD-TO	2015	Asteraceae	<i>Helianthus spp</i>		25°33'21.45" N, 103°22'17.73" W
CD-TL	2015	Asteraceae	<i>Sonchus oleraceus</i>		25°47'14.25" N, 103°21'10.37" W
CD-TL	2015	Asteraceae	<i>Sonchus oleraceus</i>		25°47'14.25" N, 103°21'10.37" W
CD-TL	2015	Asteraceae	<i>Sonchus oleraceus</i>		25°47'14.25" N, 103°21'10.37" W
CD-TL	2015	Asteraceae	<i>Sonchus oleraceus</i>		25°47'14.25" N, 103°21'10.37" W
CD-TO	2015	Asteraceae	<i>Xanthium echinatum</i>		25°32'46.79" N, 103°16'55.40" W
CD-TO	2015	Asteraceae	<i>Xanthium echinatum</i>		25°32'46.79" N, 103°16'55.40" W
CD-TO	2015	Asteraceae	<i>Xanthium echinatum</i>		25°32'46.79" N, 103°16'55.40" W
CD-LG	2015	Malvaceae	<i>Sida acuta</i>	+	25°29'28.04" N, 103°41'12.80 W
CD-LG	2015	Malvaceae	<i>Sida rombifolia</i>	+	25°29'28.04" N, 103°41'12.80 W

CD-LG	2015	<i>Malvaceae</i>	<i>Sida rhombifolia</i>	+	25°29'28.04" N, 103°41'12.80 W
CD-TL	2015	<i>Malvaceae</i>	<i>Sida rhombifolia</i>	+	25°47'14.25" N, 103°21'10.37" W
CD-TL	2015	<i>Malvaceae</i>	<i>Sida rhombifolia</i>	+	25°47'14.25" N, 103°21'10.37" W
CD-TL	2015	<i>Malvaceae</i>	<i>Sida rhombifolia</i>	+	25°47'14.25" N, 103°21'10.37" W
CD-TO	2015	<i>Malvaceae</i>	<i>Sphaeralcea angustifolia</i>	+	25°32'46.79" N, 103°16'55.40" W
CD-TO	2015	<i>Malvaceae</i>	<i>Sphaeralcea angustifolia</i>	+	25°32'46.79" N, 103°16'55.40" W
CD-TO	2015	<i>Malvaceae</i>	<i>Sphaeralcea angustifolia</i>	+	26°04'52.61" N, 102°55'30.01" W
CD-LG	2015	<i>Nyctaginaceae</i>	<i>Boerhavia coccinea</i>	+	25°29'28.04" N, 103°41'12.80 W
CD-PO	2016	<i>Portulacaceae</i>	<i>Portulaca oleraceae</i>		24°00'37.45" N, 104°07'31.73 W
CD-PO	2016	<i>Portulacaceae</i>	<i>Portulaca oleraceae</i>		24°00'37.45" N, 104°07'31.73 W
CD-PO	2016	<i>Portulacaceae</i>	<i>Portulaca oleraceae</i>		24°00'37.45" N, 104°07'31.73 W
CD-PO	2016	<i>Portulacaceae</i>	<i>Portulaca oleraceae</i>		24°00'37.45" N, 104°07'31.73 W
CD-PO	2016	<i>Portulacaceae</i>	<i>Portulaca oleraceae</i>		24°00'37.45" N, 104°07'31.73 W
CD-PO	2016	<i>Portulacaceae</i>	<i>Portulaca oleraceae</i>		24°00'37.45" N, 104°07'31.73 W
CD-LG	2015	<i>Solanaceae</i>	<i>Datura stramonium</i>	+	25°29'28.04" N, 103°41'12.80 W
CD-TO	2015	<i>Solanaceae</i>	<i>Datura stramonium</i>	+	25°33'21.45" N, 103°22'17.73" W
CD-TO	2015	<i>Solanaceae</i>	<i>Nicotiana glauca</i>	+	25°32'46.79" N, 103°16'55.40" W
CD-TO	2015	<i>Solanaceae</i>	<i>Nicotiana glauca</i>	+	25°32'46.79" N, 103°16'55.40" W
CD-TO	2015	<i>Solanaceae</i>	<i>Nicotiana glauca</i>	+	26°04'52.61" N, 102°55'30.01" W
CD-PO	2016	<i>Solanaceae</i>	<i>Solanum elaeagnifolium</i>	+	24°00'37.45" N, 104°07'31.73 W
CD-PO	2016	<i>Solanaceae</i>	<i>Solanum elaeagnifolium</i>	+	24°00'37.45" N, 104°07'31.73 W
CD-TL	2015	<i>Solanaceae</i>	<i>Solanum elaeagnifolium</i>	+	25°47'14.25" N, 103°21'10.37" W
CD-TO	2015	<i>Solanaceae</i>	<i>Solanum elaeagnifolium</i>	+	25°32'46.79" N, 103°16'55.40" W
CD-TO	2015	<i>Solanaceae</i>	<i>Solanum elaeagnifolium</i>	+	25°32'46.79" N, 103°16'55.40" W
CD-TO	2015	<i>Solanaceae</i>	<i>Solanum elaeagnifolium</i>	+	25°32'46.79" N, 103°16'55.40" W
CD-PO	2016	<i>Solanaceae</i>	<i>Solanum rostratum</i>	+	24°00'37.45" N, 104°07'31.73 W
CD-PO	2016	<i>Solanaceae</i>	<i>Solanum rostratum</i>	+	24°00'37.45" N, 104°07'31.73 W
CD-PO	2016	<i>Solanaceae</i>	<i>Solanum rostratum</i>	+	24°00'37.45" N, 104°07'31.73 W

<sup>1</sup> Designations for sampling area. Sampling areas were divided in five regions located in different biogeographic zones: Baja California (BC), Sonora (SO), Sinaloa (SI), Colima-Nayarit (CN), and Coahuila-Durango (CD). BC-SQ: Baja California, San Quintin; BC-EN: Baja California, Ensenada; BC-ME: Baja California, Mexicali; SO-OB: Sonora, Obregon; SO-NA: Sonora, Navojoa; SO-HU: Sonora, Huatabampo; SO-RC: Sonora, Rio Colorado; SI-GV: Sinaloa, Guasave; SI-SL: Sinaloa, Sinaloa de Leyva; SI-MO: Sinaloa, Mocorito; SI-PC: Sinaloa, Playa Ceuta; SI-CO: Sinaloa, Concordia; SI-AC: Sinaloa, Agua Caliente; SI-RO: Sinaloa, El Rosario; CN-SO: Colima-Nayarit, Santa Maria del Oro; CN-TE: Colima-Nayarit, Tecoman; CD-TL: Coahuila-Durango, Tlahualilo; CD-LG: Coahuila-Durango, La Goma; CD-TO: Coahuila-Durango, Torreon; CD-PO: Coahuila-Durango, Poanas.

<sup>2</sup> PCR begomovirus detection. Universal primers to detect both monopartite and bipartite members of begmomovirus genera (Supplementary Table S3).

(+). Positive begomovirus detection.

**Supplementary Table S2.** Geminivirus signatures obtained by *de novo* assembly from the metagenomics study in plants (agro-ecological interface) from five regions in north-pacific Mexico. Geminivirus-related reads for each NGS library were used for *de novo* assembly and generation of signatures. Contigs alignments of 100-299 bp in length were selected regardless whether one or both viral components were detected. A total of 59 different geminivirus species were detected, 33 and 26 from cultivated and from non-cultivated plant-adapted species, respectively.

Host adapted	Virus acronym <sup>1</sup>	Plant Family of first detection	Geminivirus-signatures of DNA-A/DNA-B <sup>2</sup>				
			Baja California	Sonora	Sinaloa	Colima-Nayarit	Coahuila-Durango
Crops	CdTV	Solanaceae	ND <sup>3</sup>	ND	93.2/92.9 (AF101476.1/EU339940.1) (148/171)	86.5/ND (DQ885456.1/ND) (178/ND)	ND
	ToYLDV		ND	ND	88.1/87.2 (HE806440.1/HE806441.1) (160/156)	ND	ND
	ToYVSV		ND	88.5/ND (KC136339.1/ND) (157/ND)	ND	ND	ND
	ToLV		ND	ND	88/ND (KM926624.1/ND) (164/ND)	ND	ND
	ToLDeV		ND	ND	ND	87.6/ND (JX501506.1/ND) (186/ND)	ND
	ToMoLCV		ND	ND	ND	87.6/78.2 (KX896414.1/JF803264.1) (227/115)	ND
	ToMoTaV		ND	ND	ND/81.6 (ND/AF012301.1) (ND/174)	ND	ND
	ToMoV		ND	ND	94.1/ND (DQ865248.1/ND) (103/ND)	ND	ND
	ToGMoV		ND	ND	ND/85 (ND/DQ406674.1) (ND/161)	ND	ND
	ToCmMV		ND	ND	ND	ND/83.9 (ND/KT203559.1) (ND/149)	ND
	ToCILDV		ND	87.9/ND (JN241632.1/ND) (132/ND)	ND	ND/84 (ND/HQ201953.1) (ND/132)	ND
	ToYLDV		ND	ND	ND	81.4/ND (KU232891.1/ND) (124/ND)	ND
	ToYMLCV		ND	ND	ND	82.2/ND	ND

						(AY508993.2/ND) (135/ND)	
	TRYLCV		ND	ND	ND	84.1/79.2 (KC132844.1/JN381820.1) (101/149)	ND
	ToLCCNV		ND	ND	ND	90.2/NA <sup>4</sup> (KU980922.1/NA) (113/NA)	ND
	ToLCSDV		ND	ND	ND	90.8/NA (HG941648.1/NA) (207/NA)	ND
	TbLCYnV		ND	ND	93.4/NA (AJ971267.1/NA) (152/NA)	ND	ND
	TbLCCuV		ND	ND	93.4/ND (KU562963.1/ND) (183/ND)	ND	ND
	TbMoLCV		ND	ND	91/ND (FM160943.1/ND) (123/ND)	ND	ND
	TbLRV		ND	ND	96.1/ND (AJ488768.2/ND) (155/ND)	ND	ND
	DaLDV		ND	ND	86.4/93 (JN848773.1/JN848774.1) (111/129)	ND	ND
	CLCrV	<i>Malvaceae</i>	ND	ND/98 (ND/AY742221.1) (ND/251)	ND/87.2 (ND/AF480941.1) (ND/157)	ND	ND
	CLCuV		ND	ND	87.4/NA (AJ228570.1/NA) (119/NA)	ND	ND
	CoChSpV		ND	ND	ND	ND/89.8 (ND/KF358471.1) (ND/138)	ND
	AbMBV		ND	ND	96.1/ND (LN611622.1/ND) (103/ND)	90/79.8 (JF694482.1/ JF694483.1) (110/129)	ND
	CabLCJV	<i>Brassicaceae</i>	ND	ND	ND	92.7/ND (DQ178614.1/ND) (124/ND)	ND
	CBSMV	<i>Fabaceae</i>	ND	ND/88.3 (ND/KX096982.1) (ND/197)	ND	89.8/89.6 (KX011476.1/KX096982.1) (148/155)	ND
	BGYMV		ND	ND	ND	81.1/89.1 (M10080.1/KU145406.1)	ND



						(154/157)		
	SbBMV		ND	91.4/ND (EF016486.1/ND) (209/ND)	ND	ND	ND	
	MCLCuV	<i>Cucurbitaceae</i>	ND	ND	ND	95/82.9 (KF670624.1/KF670631.1) (121/123)	ND	
	SYMMoV		ND	ND	ND	86.9/88.4 (KC153490.1/KC153491.1) (107/147)	ND	
	JMV	<i>Euphorbiaceae</i>	ND	ND	90.3/88.9 (KF998097.1/KF998098.1) (155/153)	ND	ND	
	PaLCuV	<i>Caricaceae</i>	ND	ND	ND	91.8/NA (KT266873.1/NA) (122/NA)	ND	
<b>Non-cultivated plants</b>	SiMBoV	<i>Malvaceae</i>	ND	ND/89.7 (ND/HM585444.1) (ND/107)	ND	ND	ND	
	SimMV		ND	87.4/87.3 (KX348159.1/KC706532.1) (278/173)	92.5/81.3 (KC706535.1/EU908734.1) (121/161)	90.2/87.3 (HM357459.3/FN557523.1) (144/142)	ND	
	SiGMV		ND	ND/80.5 (ND/AJ250731.1) (ND/216)	94.7/94 (Y11097.1/Y11098.1) (152/252)	96.1/80.5 (KT099120.1/KT099161.1) (154/159)	ND	
	SiGMBuV		ND	ND	93.5/ND (DQ665864.1/ND) (154/ND)	ND	ND	
	SiGYVV		ND	ND	91.3/86.3 (KT879825.1/KT879827.1) (161/117)	ND	ND	
	SiAMV		ND	ND	ND	ND	ND/87.7 (ND/KX691415.1) (ND/114)	ND
	SiCVV		ND	ND	ND	ND	76.6/78.75 (KX691405.1/KX691413.1) (177/160)	ND
	SiCMV		ND	ND	ND	88.6/ND (JX871370.1/ND) (149/ND)	79.6/78.7 (KX691405.1/KX691413.1) (177/160)	ND
	SiYNV		ND	ND	ND	ND	84.5/ND (JX871376.1/ND) (188/ND)	87/ND (JX871376.1/ND) (232/ND)
	SiYVV		ND	ND	ND	80.8/ND (Y11099.1/ND) (198/ND)	ND	ND

	PavYMV		ND	ND	ND	ND/83.8 (ND/KT948788.1) (ND/142)	ND	
	TrYMV		ND	ND/87.2 (ND/ KU131590.1) (ND/212)	ND	ND	ND	
	RhRGMV	<i>Fabaceae</i>	ND	ND	ND	ND/77.2 (ND/HM236371.1) (ND/176)	ND	
	MacGMV		ND	ND	93.6/87.5 (EU158096.1/DQ979834.1) (158/128)	ND	ND	
	MacCMV		ND	ND	ND	ND/82.3 (ND/KX691412.1) (ND/119)	ND	
	MacYMV		ND	ND	ND	76.4/86.4 (AJ344452.1/EF585289.1) (221/118)	ND	
	CaGMV		ND	89/ND (AF439402.1/ND) (173/ND)	94.7/ND (AF439402.1/ND) (153/ND)	90.5/ND (AF439402.1/ND) (148/ND)	ND	
	DesLDV		ND	ND	92.2/ND (DQ318930.1/ND) (155/ND)	ND	ND	
	DiYMoV		<i>Euphorbiaceae</i>	ND	ND	ND	ND/86.4 (ND/AF170101.1) (ND/155)	ND
	ChLCV		<i>Amaranthaceae</i>	ND	ND	ND	ND/89.7 (ND/KJ826528.1) (ND/117)	ND
	AYVV	<i>Astaraceae</i>	ND	ND	ND	87.7/NA (KX759647.1/NA) (285/NA)	ND	
	CleLCrV	<i>Cleomaceae</i>	ND	ND/84 (ND/JF694460.1) (ND/144)	ND	ND	ND	
	MerMV	<i>Convolvulaceae</i>	ND	ND	87.5/ND (KT693180.1/ND) (112/ND)	ND	ND	
	LaYVV	<i>Linderniaceae</i>	ND	ND	ND	90/ND (DQ641701.1/ND) (121/ND)	ND	
	PouGMV	<i>Urticaceae</i>	ND	ND	ND	91.22/ND (KU358528.1/ND) (114/ND)	ND	
	StaLCuV	<i>Verbenaceae</i>	ND	ND	82.7/ND (AJ564743.2/ND)	ND	ND	

					(151/ND)	
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<sup>1</sup> Virus acronyms:

**Monopartite Geminiviruses:** *Cotton leaf curl virus* (CLCuV), *Tobacco leaf curl Yunnan virus* (TbLCYNV), *Tomato leaf curl China virus* (ToLCCNV), *Tomato leaf curl Sudan virus* (ToLCSDV).

**Bipartite Geminiviruses:** *Abutilon mosaic virus* (AbMV), *Ageratum yellow vein virus* (AYVV), *Bean golden yellow mosaic virus* (BGYMV), *Cabbage leaf curl Jamaica virus* (CabLCJV), *Calopogonium golden mosaic virus* (CaGMV), *Common bean severe mosaic virus* (CBSMV), *Chino del tomate virus* (CdTV), *Chenopodium leaf curl virus* (ChLCV), *Cotton leaf crumple virus* (CLCrV), *Cotton leaf curl virus* (CLCuV), *Cleome leaf crumple virus* (CleLCrV), *Cotton chlorotic spot virus* (CoChSPV), *Datura leaf distortion virus* (DaLDV), *Desmodium leaf distortion virus* (DesLDV), *Dicliptera yellow mottle virus* (DiYMoV), *Jatropha mosaic virus* (JMV), *Lindernia anagallis yellow vein virus* (LaYVV), *Macroptilium common mosaic virus* (MacCMV), *Macroptilium golden mosaic virus* (MacGMV), *Macroptilium yellow mosaic virus* (MacYMV), *Melon chlorotic leaf curl virus* (MCLCuV), *Merremia mosaic virus* (MerMV), *Papaya leaf curl virus* (PaLCuV), *Pavonia yellow mosaic virus* (PavYMV), *Pouzolzia golden mosaic virus* (PouGMV), *Rhynchosia rugose golden mosaic virus* (RhRGMV), *Soybean blistering mosaic virus* (SbBMV), *Sida angular mosaic virus* (SiAMV), *Sida common mosaic virus* (SiCMV), *Sida chlorotic vein virus* (SiCVV), *Sida golden mosaic Backup virus* (SiGMBuV), *Sida golden mosaic virus* (SiGMV), *Sida golden yellow vein virus* (SiGYVV), *Sida mosaic Bolivia virus* (SiMBoV), *Sida micrantha mosaic virus* (SimMV), *Sida yellow net virus* (SiYNV), *Sida yellow vein virus* (SiYVV), *Stachytarpheta leaf curl virus* (StaLCuV), *Squash yellow mild mottle virus* (SYMMoV), *Tobacco leaf curl Cuba virus* (TbLCCUV), *Tobacco leaf rugose virus* (TbLRV), *Tobacco mottle leaf curl virus* (TbMoLCV), *Tomato chlorotic leaf distortion virus* (ToCILDV), *Tomato common mosaic virus* (ToCmMV), *Tomato golden mottle virus* (ToGMoV), *Tomato leaf deformation virus* (ToLDeV), *Tomato latent virus* (ToLV), *Tomato mottle leaf curl virus* (ToMoLCV), *Tomato mottle Taino virus* (ToMoTaV), *Tomato mottle virus* (ToMoV), *Tomato yellow leaf distortion virus* (ToYLDV), *Tomato yellow margin leaf curl virus* (ToYMLCV), *Tomato yellow vein streak virus* (ToYVSV), *Tomato rugose yellow leaf curl virus* (TRYLCV), *Triumfetta yellow mosaic virus* (TrYMV).

<sup>2</sup>Best match in %, accession numbers, and contig length aligned.

<sup>3</sup> ND: No detected.

<sup>4</sup> NA: Not applicable

**Supplementary Table S3.** List of PCR primers used in the present work

Virus	Primer name	Primer sequence 5' to 3'	Expected amplicon length (pb)	Reference
Begomovirus <sup>1</sup>	DGR-SAR	GAGTCTAGATGCTGACCTCCTCTAGCWGATCTGC	950 pb-1150 pb	Mauricio Castillo et al., 2007. De la Torre-Almaraz et al., 2006
	CP-70	CACGGATCCGATTGRACCTTACANGGNCCTTCACA		
TYLCV	qPCR-TYLCV-F	GAAGGCTGAACTTCGACAGC	171	Rodriguez-Negrete et al., 2014
	qPCR-TYLCV-R	GGACTTTACATGGGCCTTCAC		
PHYVV	qPCR-PHYVV-F	GGCGATACCGTAGAATGGGGAGAA	158	Morales-Aguilar et al., 2019
	qPCR-PHYVV-R	TGAAGGAAGAAATGCTGGGGTTGT		
RhGMV/RhGMSV <sup>2</sup>	qPCR-RhGMV-F	CTTGGTACCCCTATGGATTTTGGC	146	This work

SiMSiV	qPCR-RhGMV-F	CGTTGCTGGCATACTGTCCACC	147	This work
	qPCR-SiMSV-F	TTGGCAAGATATGGATGGATGA		
	qPCR-SiMSV-R	CAGTGCTGGGCTCGTTGTCG		

<sup>1</sup> Universal primer set designed to detect both monopartite and bipartite members of begomovirus genera.

<sup>2</sup> Primer set designed to detect simultaneously both begomovirus species (RhGMV/RhGMSV)

Virus acronyms. Pepper huasteco yellow vein virus (PHYVV), *Tomato yellow leaf virus* (TYLCV), *Sida mosaic Sinaloa virus* (SiMSiV), *Rhynchosia golden mosaic virus* (RhGMV), *Rhynchosia golden mosaic Sinaloa virus* (RhGMSV).