



Cactus Moth Detection & Monitoring Network



Cactus Moth Visual Observation Data Form Variable Definitions

Cactus Moth Visual Observation Data Form

Cactus moth in the context of this form refers to *Cactoblastis cactorum*, an introduced exotic invasive insect which feeds on pad-forming *Opuntia* spp. in the subgenus *Platyopuntia*. Report all observations. When a Visual Observation Form is submitted into the database system, a Moth Visual Observation ID is assigned. That ID will be used to represent that report in the system and is to be used to associate any specimens (Larvae, Eggstick, or Adult) taken with this report.

Pricklypear Site ID

If a Pricklypear Data Form for this site was previously entered into the database, a Pricklypear Site ID number was assigned by the system. Place that number in this blank. When submitting a Cactus Moth Visual Observation Form to the database, the system will ask for this Pricklypear Site ID. If this site is a new site, attach a new Pricklypear Data Form.

New Pricklypear Data Form

If pricklypear data has not been collected for this site, fill out a Pricklypear Data Form and attached to this form. Place a check in the space provided. When the new Pricklypear Data Form is entered into the database a Pricklypear Site ID number will be assigned by the system. Use this new Pricklypear Site ID to submit the Visual Observation Form.

Observation Date

Date observation is being, or was, made.
For example, March 6, 2005 would be entered as 03/06/2005.

Data Collector

Person collecting field data. Use full name.

Affiliation

Organization data collector is working or volunteering for. Do not use acronyms.

Contact Information

Contact Information for the data collector. May not be the same as that for the affiliation.

Visual Survey

Visual survey must be thorough. Cactus moth larvae and/or egg sticks may be overlooked without careful observation. Note whether this is a new observation or repeat observation.

New Observation

Place a check here if this is a new observation for this site. If cactus moth is found during this observation, a specimen must be collected and sent to Dr. Richard Brown (US Postal: Mississippi Entomological Museum, Box 9775, Mississippi State, MS 39762; FEDEX/UPS: 103 Clay Lyle, Mississippi State, MS 39762; Phone: 662-325-2085; email: moth@ra.msstate.edu) for identification.

Repeat Observation

Place a check here if this is a repeat observation for this site. If cactus moth is found for the first time at this site during this repeat observation, a specimen is required.

Moth Eggsticks

Provide the approximate number of egg sticks found at the site. If none, write in '0'. Do not leave blank.

Moth Larvae

Provide the approximate number of larvae found at the site. If none, write in '0'. Do not leave blank.

Moth Adults

Provide the approximate number of adults found at the site. If none, write in '0'. Do not leave blank.

Pricklypear Species

Opuntia spp. on which the cactus moth is found. If more than one species of *Opuntia* are present, list only those species on which the cactus moth is found. If the cactus moth is found on more than one species attach a separate form for each species with specimens from each species.

Infestation Area GPS Coordinates

Infestation area is the area that is infested by cactus moth. For small infestation, provide the center point. For a large infestation, enter bounding box of area. This area may be equal to, or smaller than, the area of the pricklypear population. GPS, or Global Positioning System coordinates generally recorded from a handheld GPS unit. There are many coordinates systems, but UTM or decimal degrees are requested here. If you do not have either of these, certain other GPS coordinate systems can be converted to UTM or decimal degrees using conversion software like the following: <http://boulter.com/gps/>. If you do not have a GPS unit, coordinates can be determined from a mapping program or

website, such as Discover Life (<http://www.discoverlife.org/>) Global Mapper.

Datum

The datum defines the size and shape of the Earth and the origin and orientation of the coordinate system used to map the Earth. There are many datums available, but WGS-84 is preferred here. NAD-83 is essentially the same as WGS-84. Likewise, NAD-27 and Clark 1866 may be used interchangeably.

UTM Coordinates

UTM, or Universal Transverse Mercator Coordinates, Globe gridded into zones which are metered east (easting) and north (northing).

Zone

All of the lower 48 States are covered by UTM Zones 10 to 19. For example, all of Alabama is in UTM Zone 16.

Decimal Degrees

Latitude and longitude in Decimal Degrees.
For example: Lat 31.2611 Lon 89.462983.

Specimen Type(s) Submitted

Specimens are only required for new observations. Place the Moth Visual Observation ID on each specimen before shipping. This number is generated when a Visual Observation Form is submitted. Check all boxes that apply.

Larvae

Place larvae in a vial or small jar filled with 70% alcohol. Label jar with Moth Visual Observation ID Number. Place sample in box with at least 1-2" of packing material. Do not use envelopes for shipping.

Egg Stick

Do not preserve in alcohol. Place live egg stick in capped bottle in a zip-lock bag (preferably), or in two zip-lock bags and seal. Label zip-lock bag with Moth Visual Observation ID Number. Place sample in box with at least 1-2" of packing material. Do not use envelopes for shipping.

Adult

Place adult moth in a vial or small jar filled with 70% alcohol. Label jar with Moth Visual Observation ID Number using a pencil or pen with permanent ink and enclose within a plastic bag. Place sample in box with at least 1-2" of packing material. Do not use envelopes for shipping.

Insect Identifier

For identifications prior to shipping a specimen. The person who identified the insect initially. Use full name. Not a required field.

Affiliation

Organization insect identifier is working or volunteering for. Do not use acronyms.

Date

Date insect was initially identified.

Notes

Include any additional information that may be beneficial. For example: Information about the biotic or abiotic environment when the moth was collected. If shipping samples, the shipping date, scheduled arrival date, and/or tracking number for shipment would be beneficial.