Comments on moths contributed by Eric H. Metzler, 18 June 2014		
Taxon	**Known facts to justify listing this species**	**Recommendations**
Automeris zephyria	*Automeris zephyria* occupies a limited range restricted to NM from north central (Las Vegas) to southern (Cloudcroft) NM at high elevations (7,000' and higher). Almost nothing is known about its life history. Although it was reared several times by unknown persons, no records were maintained. There appear to be no threats to this species beyond application of insecticides in NM forests at high elevation.	Monitoring *A. zephyria* would require systematic sampling at a series of stations at high elevation from northern to southern NM along the mountains. The life history must be worked out by capturing and caging mated females to determine the correct larval host/hosts. Until these additional data are available, there seems little justification for leaving *A. zephyria* on the list.
Hemileuca artemis *The taxonomic status of H. artemis* is not settled. Some authorities list it as a distinct species while others consider it a synonym of *H. nevadenis*	Dr. Richard Piegler is currently conducting DNA studies on larvae collected by me, from Otero Co., purported to be *H. artemis*. Until the results of those studies are published, *H. artemis* is not a distinct species. There would appear to be no justification for listing *H. artemis.* *Hemileuca artemis* is part of a species complex group of the genus of which the larvae are obligate feeders on cottonwood, *Populus* spp., however until the other factors of this species occurrence, such as soil morphology, soil chemistry, and the exact species of cottonwoods the larvae will accept are known, no threats can be assessed.	Removal of cottonwoods to reduce water loss through transpiration could prove a threat.
Hemileuca magnifica *H. magnifica* is a subspecies of *H. hera.*	*H. hera magnifica* is widespread in northern NM where the larvae eat *Artemesia tridentata* and *A. filifolia.* The larvae prefer lush stands of the larval host in sandy loam soils. There would appear to be no justification for listing *H. h. magnifica.* The only possible, hypothetical, threats are loss of prime habitat of the larval host in sandy loam soils, or the mis-application of insecticides.	Existing populations of this moth should be identified and subject to regular observation. Regular systematic sampling and monitoring of known populations will determine if *H. h. magnifica* is under any theat. If conversion of suitable habitat to other uses is detected, a threat may be defined.

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Taxon	**Known facts to justify listing this species**	**Recommendations**
Hemileuca chinatiensis	*Hemileuca chinatiensis* occurs extensively in western Texas with populations in SE NM, especially Eddy Co. where it is common in Carlsbad Caverns N.P. and adjacent similar habitats. There would apear to be no justification for listing *H. chinatiensis.* The only hypothetical identifiable threats are loss of prime habitat, which is not likely in Carlsbad Caverns N.P,	Existing populations of this moth should be identified and subject to regular observation. Regular systematic sampling and monitoring of known populations will determine if *H. chinatiensis* is under any theat. If conversion of suitable habitat to other uses is detected, a threat may be defined.
Proserpinus vega	*Proserpinus vega* is widespread and infrequently collected. It is a small dayflying moth that resembles a large bee when in flight during the day. Unless a person is specifically looking for these small dayflying moths, they generally go unnoticed. The only known host is a single record of a larva found on *Oenothera hookeri,* now a synonym of *O. elata. Oenothera elata* is a most common upper elevation evening primrose. Las Vegas, NM is the type locality of *P. vega*, and *P. vega* was probably added to the state list due to the limited number of specimens in collections.	The status of *P. Vega* is unknown without more exhaustive searches for the adults during the day and exhaustive searches for the larvae on *O. elata.*
Euproserpina wiesti	*Euproserpina wiesti* is narrowly confined to sandy areas and is particularly associated with washes and dunes in high desert scrub. The larvae eat several species of *Oenothera.* Until the 1970s, when the habitat was understood, *E. wiesti* was one of the least collected moths in NA. Like most species of Lepidoptera which rely on collection records to determine status, *E. wiesti* is not as rare as once thought.	Suitable habitats in NE NM should be searched for this species. Conversion of suitable habitat could pose a threat to *E. wiesti.*

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Taxon	**Known facts to justify listing this species**	**Recommendations**
Acronicta albarufa	*Acronicta albarufa* occurs only in states east of the Great Plains. There is no reason for including *A. albarufa* on the NM list	*Acronicta albarufa* should be removed from the NM list.
Carales arizonensis This species is a tiger moth.	*Carales arizonensis* occurs at high elevation in SE Arizona, and it probably occurs in the Coronado NF in Hidalgo Co. NM. If, so, it is secure.	*Carales arizonensis* is common where it occurs, and there is no reason to think it would not be common in Hidalgo Co. Someone has to go look, and all of the entomologists I talked to see no reason to risk encounters with drug smugglers and other bandits in this part of the state. The only probable threats are habitat destruction or mis-application of insecticides and herbicides.
Papaipema dribi	The larvae of the genus *Papaipema* are borers in a variety of vascular, usually not woody, plants. *Papaipema dribi* is known from only a handful of specimens from Bent, NM and High Rolls, NM, and has not been collected since the 1920s. *Papaipema* moths are difficult to detect, they are poorly attracted to light, which is the gold standard for detecting moths, and in most cases *Papaipema* moths are narrowly confined to the habitat of the larval host. Because the larval host of *P. dribi* is unknown, the specific habitat of where to look is unknown. I've been to Bent and High Rolls. There is plenty of habitat where *P. dribi* might be found. One thing is required to determine the status of *P. dribi* - someone has to go look for it. The search will not be easy because the search will require placing several light traps in a variety of micro-habitats every night from late July through October.	Someone has to make a concentrated effort to locate a population of *P. dribi,* and hopefully identify the larval host. Only when the habitat and larval host are identified will it be possible to properly analyze the status of *P. dribi.* The hypothetical possible threats to *P. dribi* are loss of suitable habitat and insecticides.

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Taxon	**Known facts to justify listing this species**	**Recommendations**
Nemoria rindgei. *Nemoria rindgei* should be called "Green Looper Moth"	*Nemoria rindgei* is rarely collected and almost nothing is known about it. It occurs from Lordsburg to Carlsbad which suggests it is wide spread in southern New Mexico. *Nemoria rindgei* is a small green looper moth, and small green looper moths are rarely collected for a variety of reasons, e.g. they are difficult to process, and they are very difficult to identify. I have many small green geometrid moths from Carlsbad Caverns NP and White Sands NM which remain to be identified. Perhaps I have unknowingly collected *N. rindgei*	*Nemoria rindgei* was probably added to the NM list because NM is the type locality and because so few specimens are known. Because almost nothing is known about this species, it is not possible to identify any threats other than loss of habitat (but what is the habitat?) and application of insecticides.
Schinia zuni *Schinia zuni* is a flower moth	*Schinia zuni* is a member of a large genus of small day-flying moths that are often rare in collections. The key to locating any species of *Schinia* is to inspect flower heads of various plants, usually Asteraceae, during the day. The trick for finding *S. zuni* was recently discovered by Charles E. Harp who, with Dr. Michael G. Pogue, has a manuscript in review.	Nothing more can be said until the revision of the genus *Schinia,* is published by the Wedge Entomological Research Foundation in 2015. No formal status can be assigned to *S. zuni* until the details of the larvall host and habitat requirements are published.
Euhyparpax rosea	*Euhyparpax rosea* occurs in extreme western NM and SE Arizona. A revision of the family Notodontidae is in preparation by Dr. James Miller. Until the revision is published, almost nothing can be said about *Euhyparpax*.	Nothing more can be said until the revision of the genus *Euhyparpax,* is published by the Wedge Entomological Research Foundation in 2015. No formal status can be assigned to *Euhyparpax rosea* until the details of the larval host and habitat requirements are published.

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Taxon	**Known facts to justify listing this species**	**Recommendations**
Oligocentria delicata	*Oligocentria delicata* occurs in western NM and SE Arizona. A revision of the family Notodontidae is in preparation by Dr. James Miller. Until the revision is published, almost nothing can be said about *Oligocentria*.	Nothing more can be said until the revision of the genus *Oligocentria,* is published by the Wedge Entomological Research Foundation in 2015. No formal status can be assigned to *Oligocentria delicata* until the details of the larval host and habitat requirements are published.
Loxostege quaestoralis	*Loxostege quaestoralis* is a small, easily overlooked, winter moth of deserts, flying by day in January and February. Nothing is known of its life history or habitat requirements. Beause it flies in the daytime in January and February when most collectors are inactive in the field, it is logical that nothing is known of *L. quaestoralis'* life history or habitat requirements.	Because nothing is known of *L. quaestoralis'* life history or habitat requirements, it is not possible to identify any specific threats. Without further information, *Loxostege quaestoralis* should be removed from the NM list.
Alexicles aspersa *Alexicles aspersa* is a tiger moth	*Alexicles* is known from extreme NE Arizona and NW NM. Details of its distibution in NM is not recorded. Its life history and habitat requirements are not known. *Alexicles aspersa* was probably added to the NM list because of its limited distribution in the NM in habitats that are generally inaccessible because the lands are in Reservations.	Because nothing is known of *A. aspersa*'s life history or habitat requirements, it is not possible to identify any specific threats.

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Taxon	**Known facts to justify listing this species**	**Recommendations**
Automeris io neomexicana	The taxonomic status of *A. i. neomexicana* is uncertain. The supposed diffeences between *A. i. neomexicana* and the nominate subspecies are inconsistent across the range of *A. i. neomexicana,* although the name of the subspecies is retained pending more investigation. *Automeris io neomexicana* apparently occurs at higher elevations where the larvae were reared on several plants, although there are no wild caught larvae to confirm its natural host(s). The specimens of *Automeris io* I collected at Carlsbad Caverns NP were the nominate phenotype.	No threats are identified. Habitat loss and application of insecticides could adversely affect this species.
General Comments	1. The G rankings of Nature Serve do a disservice by equating the undefined term "rare" with the legal terms "Endangered" and "Threatened." In Lepidoptera, frequency or relative abundance, the underpinnings of rarity are based on collections based specimens. Many abundant species of moths are rarely seen in collections because they are considered trash species, thus they are not vouchered, or the species are undetected by black-light, the gold standard used for detecting moths. Therefore, species that are under-represented in collections get classified as rare, and the word rare is misinterpreted to mean Threatened or Endangered. 2. Adult Saturniidae have no functional mouthparts. They do not take nectar, they do not visit flowers, and they are not pollinators. The www.bison-m.org web site contains errors pertinent to moths, and the data should be carefully scrutinized or ignored all together as unreliable.	

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