

Entomological Society of America Proposal Form for New Common Name or Change of ESA-Approved Common Name

Complete this form and e-mail to pubs@entsoc.org.

Submissions will not be considered unless this form is filled out completely.

The proposer is expected to be familiar with the rules, recommendations, and procedures outlined in the "Use and Submission of Common Names" on the ESA website at https://www.entsoc.org/pubs/use-and-submission-common-names.

1. Proposed new common names:

- Lymantria albescens: ivory spongy moth
- Lymantria postalba: white-winged spongy moth
- Lymantria umbrosa: shadow spongy moth
- Lymantria mathura: rosy tussock moth
- Lymantria monacha: black-arched tussock moth
- Lymantria xylina: casuarina tussock moth

2. Previously approved common name (if any):

None

3. Scientific name (genus, species, author):

Lymantria albescens Hori & Umeno	Order: Lepidoptera
Lymantria postalba Inoue	Family: Erebidae
Lymantria umbrosa Walker	Subfamily: Lymantriinae
Lymantria mathura Moore	
Lymantria monacha Linnaeus	
Lymantria xylina Swinhoe	



Supporting Information

4. Please provide a clear and convincing explanation for why a common name is needed, possibly including but not limited to the taxon's economic, ecological, or medical importance, striking appearance, abundance, or conservation status:

In 2021 and 2022, the Entomological Society of America removed the name "gypsy moth" from its Common Names List for the species *Lymantria dispar*, subsequently replacing it with "spongy moth." However, several related moths are commonly referred to as "gypsy moths" using a "[descriptor] gypsy moth" construction despite being separate species from *L. dispar*. While none of these names have ever been adopted into the ESA Common Names List, their usage continues in some places at least in part because ESA's adoption of "spongy moth" formally applies only to *L. dispar* and its subspecies but not to other *Lymantria* species for which "gypsy moth" has also been used. Moreover, even if "spongy moth" is applied to any species previously called a "gypsy moth," some commonly used descriptors (e.g., Okinawa spongy moth, Hokkaido spongy moth, etc.) run counter to ESA's guidelines that discourage names referring to ethnicities or geographic locales. Taken as a whole, these dynamics have created ambiguity among the community of researchers, government agencies, extension personnel, etc., who work with these species about what common names to use for them. Thus, formal adoption of these proposed common names by ESA—for four *Lymantria* species previously known by "[descriptor] gypsy moth" names and two other *Lymantria* species frequently grouped with them as significant potential pests—would provide clarity to this matter.

For a summary of both why *L. dispar* is a major pest of concern and why "gypsy" is an unsuitable descriptor for an insect common name, see the <u>original "spongy moth" common name proposal</u>. The related *Lymantria* species included in this proposal differ from *L. dispar dispar*, the subspecies established in eastern North America, in two important ways: 1) adult females of these species are capable of flight (unlike *L. dispar dispar* adult females), and 2) through ongoing international biosecurity efforts, these related species have not become established in North America. Their flight capability is precisely why detection efforts are so robust.

As the U.S. Department of Agriculture's Animal and Plant Health Inspection Service <u>explains</u> about the subset of these species previously dubbed "Asian gypsy moths" (AGMs): "If they would become established here, they could cause serious, widespread damage to our country's landscape and natural resources. AGMs are similar to the European gypsy moth found in the northeastern United States but have a much broader host range. Each female moth can lay hundreds of eggs that, in turn, yield hundreds of voracious caterpillars that may feed on more than 500 tree and shrub species. Large AGM infestations can completely defoliate trees. This defoliation can severely weaken trees and shrubs, making them more susceptible to disease. Repeated defoliation can lead to the death of large sections



of forests, orchards, and landscaping. AGM females are also active fliers. Their ability to fly long distances makes it probable that AGMs could quickly spread throughout the United States."

So, while these species do not currently garner widespread public attention like L. dispar dispar does, they are frequently studied and discussed among researchers and the community of stakeholders invested in keeping them out of North America. Individual moths from these species are found near annually by cooperative agricultural pest survey programs; for instance, L. umbrosa was found in a trap in Washington state in 2019. When these lesser-known species escape and establish breeding populations in North America, regulatory and eradication efforts become necessary—and public communication is integral to effective response efforts. In such scenarios, common names are desirable, and formally established names in ESA's list for these less common species would be preferable to the "wisdom of the crowd" filling the void in the event of an infestation significant enough to capture's the public's attention—particularly given that some names currently in common use fail to meet ESA common name guidelines. (To envision this latter outcome, look no further than the names rapidly taken up in the public consciousness for Vespa mandarinia in 2020.) While it would be infeasible or perhaps impossible for ESA to have an approved common name at the ready for every invasive insect species that could arrive and garner attention, the extensive level of effort already in place to detect and respond to an outbreak of these Lymantria species—as well as the history of periodic trap finds and associated localized control efforts—is both evidence of the clear and significant risk they pose and an argument in favor of "preemptively" adopting common names for them.

Perhaps most prominent among biosecurity efforts for *Lymantria* species is the trade partnership program managed by U.S. and Canadian federal agencies along with counterparts in Pacific Rim countries targeting *L. umbrosa*, *L. albescens*, *L. postalba*, *L. dispar asiatica*, and *L. dispar japonica*, collectively referred to by the participating countries as "Asian gypsy moths" or "AGMs" and regulated as a species complex. ESA's adoption of "spongy moth" spurred these countries to seek a new name for this regulatory complex, which has been agreed upon but not yet made public.

The name for the regulatory complex will be useful as an umbrella term for discussing these five species and subspecies, and we envision ESA incorporating information about the grouping into its guidance on spongy moth common names. However, the included species are also often discussed individually in public, government, and academic communications, and so unique common names for each species are warranted to facilitate communication about them individually. This includes *L. umbrosa*, *L. albescens*, and *L. postalba*.

Regarding *L. dispar asiatica* and *L. dispar japonica*, we choose not to propose common names for these subspecies for two reasons: 1) ESA's Common Names program rarely adopts names for individual subspecies (currently 62 out of 2,299, or 2.7%, of ESA common names are for subspecies, and in only



four of those cases does the "parent" species also have its own name in the list), and 2) the taxonomic distinction between *L. dispar asiatica* and *L. dispar japonica* is thin. Indeed, ESA's guidance on "spongy moth" already states that the name applies to all subspecies, and the primary distinction between the North American and European strain (*L. dispar dispar*) and Asian strains (asiatica, japonica) is that females of the latter can fly. In a taxon that has seen numerous historical revisions, we believe the *L. dispar* subspecies distinctions are too fluid and subject to change to warrant adopting separate common names for each. They are all spongy moths and, where distinction must be made, using scientific names and noting the strains with flight-capable females would be best.

5. Stage or characteristic to which the proposed common name refers.

(If the description involves a physical feature, it is strongly encouraged that an image of the organism be provided with this submission.)

Lymantria albescens: ivory spongy moth. Based on Latin *alba* (white) at root of species epithet. Pogue & Schaefer 2007 note *L. albescens* males are "the whitest of all members of the *L. dispar* species group." Male (left) and female (right) pictured below, from Pogue & Schaefer 2007.







Lymantria postalba: white-winged spongy moth. Based on translation of Latin postalba (after + white), referring to white hindwing of adults. Male (left) and female (right) pictured below, from Pogue & Schaefer 2007.



Lymantria umbrosa: shadow spongy moth. Based on translation of Latin umbra (shadow) at root of species epithet. Pogue & Schaefer 2007 note the hindwing "has more white on it than either *L. d. dispar* or *L. d. japonica*, and the dark margin contrasts with the lighter ground color and shares this distinct band with *L. d. dispar*." (emphasis added) Male (left) and female (right) pictured below, from Pogue & Schaefer 2007.





Lymantria mathura: rosy tussock moth. Based on light pink coloration on head, abdomen, and wing fringe in adult females. Female pictured below, from Pogue & Schaefer 2007.



Lymantria monacha: black-arched tussock moth. Based on distinctive black wavy markings on forewings. Female pictured below, from Pogue & Schaefer 2007.





Lymantria xylina: casuarina tussock moth. Species is known as a destructive pest of Casuarina spp. trees. Pogue & Schaefer 2007 note it is "commonly found as a pest of Casuarina equisetifolia C. cunninghamiana in windbreak plantations in Taiwan and China." Male (left) and female (right) pictured below, from Pogue & Schaefer 2007.



Two additional notes about these name choices, collectively:

- 1. As noted previously, several related moths have been commonly referred to as "gypsy moths" using a "[descriptor] gypsy moth" construction despite being separate species from *L. dispar*. This is a confusing naming structure, indicative of the tricky distinctions between these closely related and sometimes obscure species. Because several of these species have been and will continue to be discussed as a complex, using an umbrella term for regulatory purposes, we suggest following this existing naming structure using "spongy" in place of "gypsy"—but only for the species included in the regulatory complex (*L. albescens*, *L. postalba*, and *L. umbrosa*). In the case of *L. mathura*, which has been referred to as the "rosy gypsy moth" or "pink gypsy moth," we suggest breaking with this structure, adopting a name including "tussock moth" rather than "spongy moth," to differentiate it from the species that are included in the regulatory complex. While "tussock" as a term itself is not widely understood by the public, "tussock moth" is a long-used collective label for moths in Lymantriinae that we believe can be useful in identifying these moths as belonging to this larger group.
- 2. The community that works with these species often shortens their common names to initialisms (e.g., AGM, OGM, HGM, etc.) for yet further ease in differentiation, particularly when discussing multiple species. The names above have been selected with this dynamic in mind, with each name allowing for a unique three-letter initialism: ISM, WSM, SSM, RTM, BTM, CTM.



6. Distribution (include references):

Lymantria albescens: Japan (Okinawa, southern Ryukyu Islands) (Pogue & Schaefer 2007)

Lymantria postalba: Japan (southern Kyushu, northern Ryukyu Islands) (Pogue & Schaefer 2007)

Lymantria umbrosa: Japan (Hokkaido) (Pogue & Schaefer 2007)

Lymantria mathura: Southern and eastern Asia (from India in the west to far eastern Russia), Japan, Taiwan (GBIF)

Lymantria monacha: Throughout Europe, western Russia and far eastern Russia, southern India, Japan, Taiwan, Philippines (GBIF)

Lymantria xylina: Taiwan, Japan, Chinese Taipei (GBIF)

7. Principal hosts (include references):

While this group of species show some variation in primary host preference, they are known to feed on a wide variety of host plants. In its summary of the AGM complex, USDA APHIS notes the moths "may feed on more than 500 tree and shrub species."

8. Please provide multiple references indicating clearly that the proposed name is already established and ideally widespread in use. If the name has been newly coined for purposes of this application, please state so:

Lymantria albescens: ivory spongy moth. New coinage, based on Latin alba (white) at root of species epithet. The well establish existing use of the word "white" in the *L. postalba* name below creates a need for a synonym. "Ivory" was selected because it is simple, descriptive of the color, and starts with a distinct letter from other spongy moths in this group, to reduce confusion if or when various species are abbreviated to their initials.

Lymantria postalba: white-winged spongy moth. "White-winged gypsy moth" is currently used on PestTracker.org, listed first on CAPS factsheet, and listed in Pogue & Schaefer 2007. "White-winged gypsy moth" on Google returns ~150 results.

Lymantria umbrosa: shadow spongy moth. New coinage, based on translation of Latin umbra (shadow) at root of species epithet.



Lymantria mathura: rosy tussock moth. "Rosy gypsy moth" or variations (e.g., "rosy moth," "rosy Russian moth") are currently used on iNaturalist, PestTracker.org, and invasive.org; listed first on CAPS factsheet; and listed in Pogue & Schaefer 2007. While "rosy gypsy moth" returns more results on Google (~2,200) than "rosy tussock moth" (~325), we opt for "tussock" instead of "spongy" for this species because it is not included in the regulatory complex.

Lymantria monacha: black-arched tussock moth. New coinage; a variation on the name "black arches," a name commonly used in the United Kingdom for *L. monacha*. Based on distinctive black wavy markings on forewings. The proposed name uses the insect group identifier "tussock moth" and modifies "black arches" into an adjectival form, "black-arched," for the descriptor. "Black-arched tussock moth" on Google returns ~200 results. (While "black arches" returns ~170,000 results; for more on why we opt against this name, see section 9.)

Lymantria xylina: casuarina tussock moth. "Casuarina tussock moth" or variations (e.g., "casuarina moth") are currently used on iNaturalist, PestTracker.org, CABI.org, and invasive.org and listed first on CAPS factsheet and in Pogue & Schaefer 2007. "Casuarina tussock moth" on Google returns ~450 results; "casuarina moth" returns ~1,400.

9. Please identify any common names in use, including those used by indigenous peoples in the insect's area of origin, that have been applied to this taxon, other than the one herein proposed, with references. Please justify why each alternate name is inadequate:

Common names listed below as compiled in Pogue & Schaefer 2007. Even where "spongy" would be substituted in place of "gypsy," many of these names run counter to ESA guidelines for their use of geographic or ethnic descriptors. Others are simply translations of the names proposed herein. And several others refer to specific but non-exclusive host plants.

Lymantria albescens: Okinawa Gypsy Moth, Albescens Gypsy Moth; Shiroshita-maimai (Japanese)

Lymantria postalba: Ryukyu Gypsy Moth, White-winged gypsy moth; Ko-shiroshita-maimai (Japanese)

Lymantria umbrosa: Hokkaido gypsy moth, Dosanko gypsy moth, Ezo-maimai (Japanese)

Lymantria mathura: Pink gypsy moth, Mathura tussock moth, Rosy Russian Moth; Sal Defoliator (in India); Bulkeunmaemi-Nabang (in Korean); Kashiwa-maimai (in Japanese); Shelkopryad rozovyy neparnyy (in Russian); Le-do-er (in Chinese), and local translations in China refer to it as Oak tussock moth, Oak gypsy moth, and Scalloped-edge tussock moth.



• While "rosy gypsy moth" is in use in some places (iNaturalist, invasive.org) and returns ~2,200 results on Google, we opt for "tussock" instead of "spongy" for this species because it is not included in the regulatory complex.

Lymantria monacha: Nun moth, Black Arches, Black arched or Black arches tussock moth (in England or Europe); Nonne-maimai (in Japanese); Eolrukmaemi-Nabang (in Korean); Mo-do-er (in Chinese) and translations of local names refer to it as Pine-needle tussock moth or Fir tussock moth; Mariposa monacha, Mariposa monja, Lagarta monacha, or monja (in Spanish); nonne, Bombix or Bombyx moine, or moine (in French); Monashenka (in Russian); Fichten spinner or Nonne (in German); Monaca (in Italian); Nonnetje or Nonvlinder (in Dutch); Bekyne mniska (in Czech or Slovakian); Nonnen (in Danish); Barrskogsnunna (in Swedish); shovkopryad-monashka (in Ukrainian), and Brudnica mniszka (in Polish).

- By far, "nun moth" appears to be the most commonly used name for L. monacha, as "nun" is a direct translation of the Latin species epithet monacha. However, "nun moth" is also commonly used as a name in some European countries for Lymantria dispar, which could lead to confusion if adopted for L. monacha. Additionally, ESA's common names guidelines discourage descriptors referring to occupations; "nun moth" would fail to meet this criteria. Because this species is a pest of high concern in Europe (as would be the case if it arrived in North America), associating its pest status and eradication efforts with a religious figure would be undesirable.
- While "black arches" is also a common existing name for this species, that name on its own lacks any mention of an actual insect. A native North American moth, *Melanchra assimilis*, is also commonly referred to as "black arches," making the use of "arched" rather than "arches" for *L. monacha* further useful in creating a distinction between the species.

Lymantria xylina: Xylina tussock moth; Mae-guro-maimai or Nobunaga-maimai (in Japanese); Mu-do-er (in Chinese) and other local names in Chinese translate as Dark-margined tussock moth, Wood tussock moth, or Acacia tussock moth.

10. Please identify any other organisms to which your proposed common name could apply, giving careful consideration to closely related taxa. Please justify why the proposed common name is (i) unsuitable for each of those taxa and/or (ii) better suited for the proposed taxon:

For each of these six species, the exact common names proposed have essentially zero usage for any other taxa.

One close exception could be for *Dryocampa rubicunda*, which is commonly dubbed the "rosy maple moth" for its vibrant pink coloration in adult form; its ESA common name, "greenstriped mapleworm," refers to its larval form. As *D. rubicunda* is native to North America, markedly different in appearance from *L. mathura*, and not known as a significant pest, we believe the potential for confusion between the two "rosy" names containing differentiating primary descriptors ("tussock" vs. "maple") is minimal.



Of greater potential for confusion is likely *within* the three proposed "spongy moth" names. Often, these moths are discussed as a group, without distinction between them, in which case referring to them generally as "spongy moths" may suffice. (Should a layperson report a sighting of a shadow spongy moth that is actually an ivory spongy moth, for instance, the practical impact of this confusion is likely minimal. Immediate response will be much the same.) The individual common names will be most useful in contexts in which the individual species are discussed and distinguished from one another.

"Casuarina tussock moth" is tied to the species *Lymantria xylina* being known as a destructive pest of *Casuarina* spp. trees, particularly in China and Taiwan. The species *Pernattia chlorophragma*, native to Australia, appears in some places with the name "desert casuarina moth." Whereas *P. chlorphragma* belongs to a separate family (Lasiocampidae), the inclusion of "tussock" ties the proposed name most directly to *L. xylina*.

11. Please document your efforts to consult with entomologists (including taxonomic specialists), colleagues, or other professionals who work with the taxon as to the suitability and need for the proposed common name. Please note that this is an important element of your proposal; proposals that do not document these steps are less likely to be successful.

The working group that guided the selection of "spongy moth" for *Lymantria dispar* in 2021 and early 2022 chose not to pursue common names for other species informally known with "gypsy moth" names out of an interest to keep its focus limited on the urgent need for a new name for *L. dispar*. But that group acknowledged the potential need for a subsequent follow-up effort. In spring 2022, ESA staff recruited participants for a new working group, first extending the opportunity to members of the original working group and then to others recommended by group members. A roster of this new working group (13 members, not including ESA staff liaisons) is attached to this proposal; the members involved span a range of specialties, functions, geographic scopes, and organizational settings, working in research, management, and outreach on *Lymantria* moths. The group has convened four times for indepth discussions on common names for this group of species. Between the third and fourth meetings, group members shared a draft of this proposal with key colleagues with expertise in these moths for comments and feedback.

Proposed by: Lymantria Common Names Working Group

E-mail: pubs@entsoc.org (ESA staff can reroute to working group members)

Date submitted: October 19, 2022



References:

U.S. Department of Agriculture, Animal and Plant Health Inspection Service. 2022. Asian Gypsy Moth. https://www.aphis.usda.gov/aphis/resources/pests-diseases/hungry-pests/the-threat/asian-gypsy-moth/asian-gypsy-moth.

Lymantria mathura Moore, 1865 in GBIF Secretariat (2021). GBIF Backbone Taxonomy. Checklist dataset https://doi.org/10.15468/39omei accessed via GBIF.org on 2022-09-01.

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Lymantria Common Names Working Group members

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