

“The Language of Invasive Species Messaging & Framing”



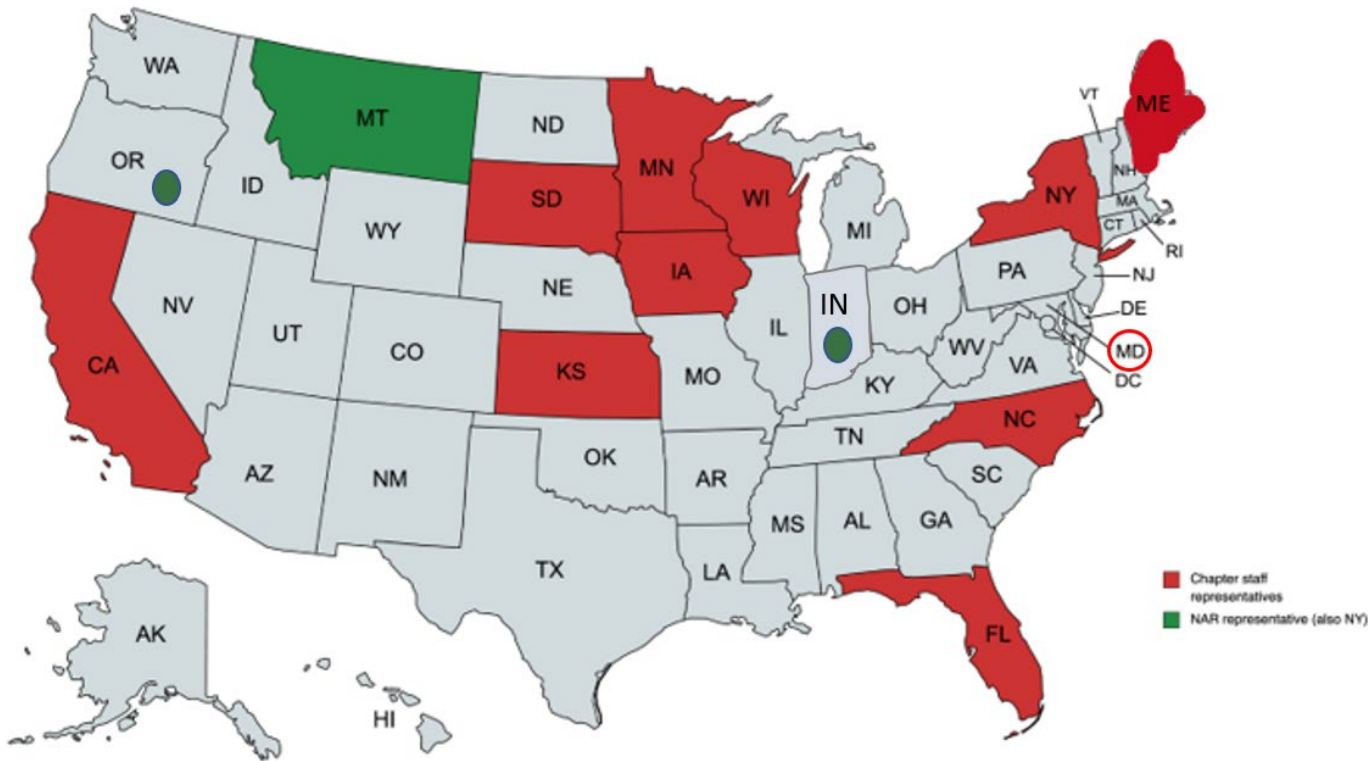
Photo: Replacing invasive plants with native alternatives. ©The Nature Conservancy in partnership with Aaron Coury



Invasive Species Advisory Committee
(North America Region)

Presented by

Leigh Greenwood, TNC North America
Nancy Olmstead, TNC Maine
Rob Williams, Facilitator – TNC New York



- **Current ISAC members (as of December 2021):**
- **ISAC Chair:** Rob Williams - New York
- **ILN Co-lead:** Leigh Greenwood – North America
- **ILN Co-lead:** Margaret Fields - North Carolina
- **Past Chair/Nominations:** Kristina Serbesoff-King – Florida
- **Member:** Lindsay Chadderton – Great Lakes Project
- **Member:** vacant
- **Member:** John Randall – California
- **Member:** Rachel Holmes - North America
- **Member:** Kari Hagenow – Wisconsin
- **Member:** Cody-Marie Miller – Florida
- **Member:** Anthony Capizzo – Kansas
- **Member:** Joe Blastick - South Dakota/Minnesota
- **Member:** Dale Maxon – Iowa
- **Member:** Deborah Landau - Maryland/DC; Central Apps
- **Member:** Nancy Olmstead Maine

Sponsor: Joe Fargione - North America



The Nature
Conservancy 

- Biological Control Guidance
- Guidance on Herbicide Use
- Managing for Resilience
- Published a document on the effects of climate change and disease with reduced capacity in the contiguous United States
- Formal Work Plan
- Internal/External Communication

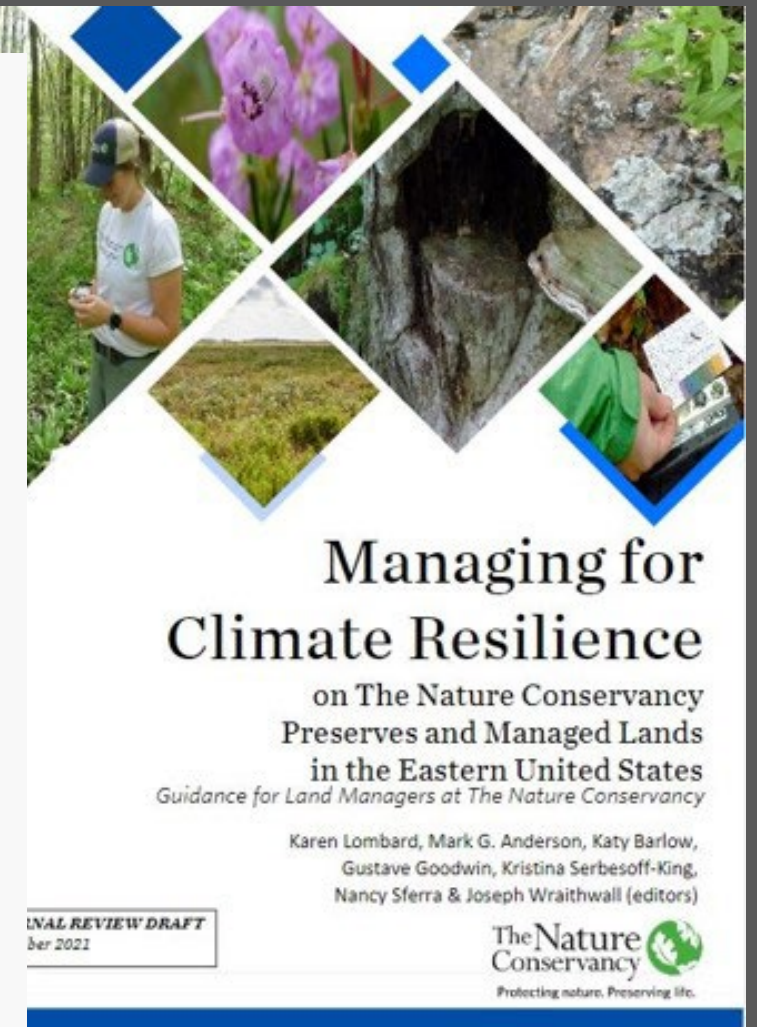
ISAC Accomplishments

TNC ISAC

Work Plan & Communications Strategy

Overview

2022-2024



The Nature
Conservancy 



“The Language of Invasive Species Messaging & Framing”

Leigh Greenwood, Nancy Olmstead

The Nature
Conservancy 

Photo: Lymantria dispar a.k.a. spongy moth a.k.a. gypsy moth. ©TNC J. Lindholm

Connect with TNC ISAC

- On Connect, search “Invasive Species Advisory Committee”
- To join our list-serve: email (helpdesk@tnc.org) and type “I’d like to join the Invasives listserv”
- Reach out to one of our standing members!



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Member: Kari Hagenow – Wisconsin

Member: Cody-Marie Miller – Florida

Member: Anthony Capizzo – Kansas

Member: Joe Blastick - South Dakota/Minnesota

Member: Dale Maxon – Iowa

Member: Deborah Landau - Maryland/DC; Central Apps

Member: Nancy Olmstead Maine

Sponsor: Joe Fargione - North America

Language and Messaging in Invasive Species Management



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FIRST POLL



Wabanaki homelands



© ©Jerry and Marcy Monkman/EcoPhotography



Photo from TNC Maine – “Forest” Conservation Priorities website

Ecology of place

>90% of Maine is forested including forested wetlands



Acknowledge my
background / practice /
lens =
terrestrial invasive plants



Invasive species language is problematic

Problematic terms:

Invasive

Non-native

Exotic

Alien

Problematic messaging:

War on weeds

Eradication campaign

Attacking _____ (*name your species*)

Uninvited invaders

What is the problem?

- Emphasis on geography of origin oversimplifies IS ecology in problematic ways
- Messaging can reinforce this

Examples: ways language/messaging can be problematic

1. War-like language/messaging implies mal intent and can feed into xenophobia and racism
2. Focus on “non-native” species can imply that all such species are harmful
3. Facilitating factors can be important
4. Aggressive invaders vs recognizing intentional introductions

RUSSIA'S INVASION OF UKRAINE

As Russia massed more than 100,000 troops around Ukraine, issued ultimatums to the United States and NATO, raised tensions and prospects of war in Europe, and ultimately launched a massive invasion of Ukraine on February 24, Brookings experts have provided analysis on Moscow's aims, Western reactions and policy options, and wider implications.

1. Association with military language carries implication of agency or/and mal intent

Creates perceived or actual xenophobia, racism

ering in its support for Ukraine

2022

EXPERTS



Fiona Hill

Senior Fellow - Foreign Policy, Center on the United States and Europe



Steven Pifer

Nonresident Senior Fellow - Foreign Policy, Center on the United States and Europe,



Angela Stent

Nonresident Senior Fellow - Foreign Policy, Center on the United States and Europe



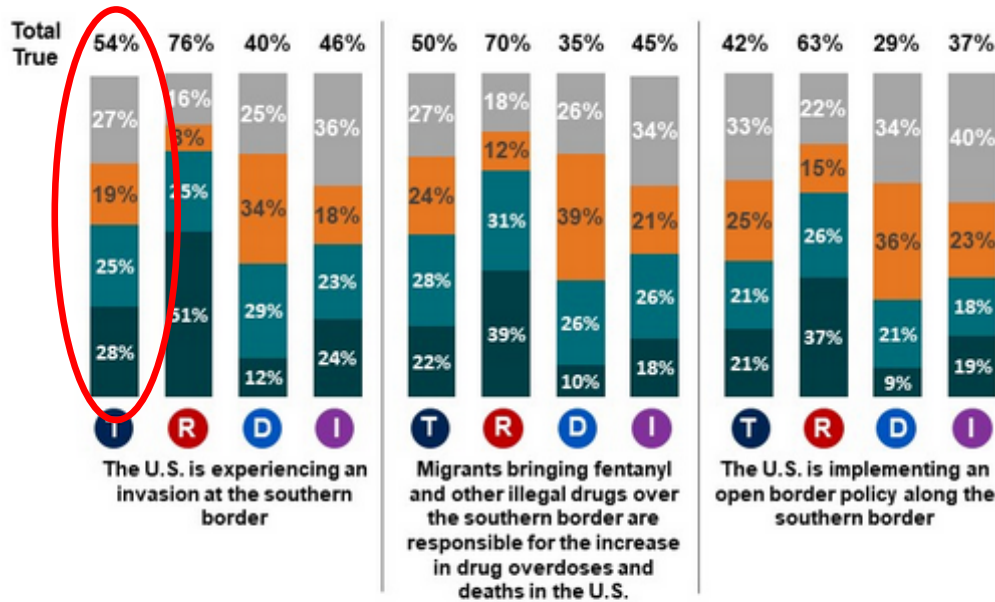
<https://www.brookings.edu/topic/russias-invasion-of-ukraine/> accessed 10/31/2022

On immigration, most buying into idea of “invasion” at southern border

1. This language is feeding into xenophobic & racist narratives

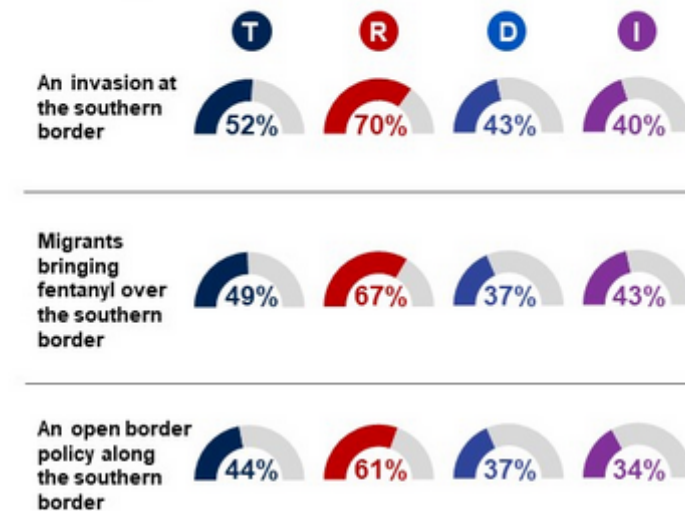
To what extent, if any, do you believe the following are true?

% Selecting ■ Completely true ■ Somewhat true ■ Completely false ■ Don't know



In the past few months, how often have you heard the following talked about?

% Selecting Often/Sometimes



© 2022 Ipsos Base: All respondents (N=1,116); Republicans (N=317), Democrats (N=516), Independents (N=141)

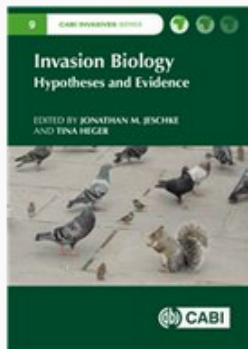


August 2022 NPR/Ipsos poll as reported on Ipsos.com 8/18/2022

2. Focus on “non-native” or “non-indigenous” species can imply that all such species are harmful, which is false

CABI Book Chapter

Invasion biology: hypotheses and evidence.



Description

This book, containing 18 chapters, combines the hierarchy-of-hypotheses (HoH) approach with hypothesis networks for invasion biology. This book aims to further develop the HoH approach by inviting critical comments (Part I), apply it to 12 major invasion hypotheses (Part II) and explore how it can be expanded to a hierarchically structured hypothesis network (Chapter 7 and Part III). It is importa...

[More about this book →](#)

Chapter 13 (Page no: 124)

Tens rule.

The tens rule became a popular invasion hypothesis in the 1990s and is still widely used today, even though empirical support has been mixed from the beginning and the number of studies questioning it has been increasing in the past decade. Also, the rule is not based on a model or other defensible concept or argument. Here we divide

“A quantitative metaanalysis of 102 empirical tests of the tens rule from 65 publications shows no support for this hypothesis.”

“...comparing different taxonomic groups, about 25% of non-native plants and invertebrates, and about 50% of non-native vertebrates are on average successful in taking consecutive steps of the invasion process. We thus suggest replacing the invasion tens rule by two taxon-dependent hypotheses: the *50% invasion rule* for vertebrates and the *25% invasion rule* for other organisms...”

3. Omission of facilitating factors



Copyright: istockphoto.com



4. Agency - narrative of “uninvited aggressive invader” hides reality of intentional introductions for many taxa

How do invasive plants get here? – Mostly brought on purpose

62% deliberate, 9% accidental, 28% unknown



~40% for horticulture
~8% for forage
~7% deliberate, reason unknown
~4% for “conservation”
~3% medicinal



~9% accidental

-contaminants:
seed, livestock,
packaging (8%)
-ballast (<1%)



Lehan et al. 2013. Am. Journal of Botany 100(7): 1287-1293

Not a new problem

CONCEPTS AND QUESTIONS

495

The war of the roses: demilitarizing invasion biology

Brendon MH Larson

Biologists need to continuously reflect upon the ethical and rhetorical dimensions of their language when communicating about invasive species. In particular, is current language likely to promote social cohesion and, consequently, effective and appropriate action towards invasive species? To address this question, I focus on prevailing militaristic and combative metaphors within invasion biology. I argue that these metaphors are problematic because (1) they lead to an inaccurate perception of invasive species; (2) they contribute to social misunderstanding, charges of xenophobia, and loss of scientific credibility; and (3) they reinforce militaristic patterns of thought that are counterproductive for conservation. Therefore, while these metaphors may effectively motivate conservation action in the short term, they could be ineffective in the long term. Alternatives to militarism will better promote realistic management and conservation goals in a multicultural context.

Front Ecol Environ 2005; 3(9): 495–500

Biologists currently devote considerable resources towards invasive species because of their dramatic spread, economic cost, and effects on ecological systems (Mack *et al.* 2000). Given the magnitude of this phenom-

example, a popular book states, “There is little consolation in the fact that 90% of these *impacts* are ‘*duds*’, and only 1% really *detonate*. The *bombardment* is continual, and so are the *detonations*” (Bright 1998; emphasis

Larson 2005, *Frontiers in Ecology and the Environment*

Good solutions to the problem?

**NOW DON'T EVERYBODY JUMP UP AT
ONCE.**

Possible best practices for your review

1. Avoid use of “warlike” metaphors/language
2. Investigate and name the agency of people of privilege in arrival of IS
3. Routinely place IS in the context of facilitating factors and other stressors
4. Denounce xenophobia and racism.
5. Emphasize the desired ecosystem state rather than the activity of IS removal

Thriving native plant communities build healthy ecological relationships



10/12/2016



Food web relationships depend on native plants



William Warby,
<https://flic.kr/p/dtKZF2>





**Land
stewardship is
about tending
relationships**

Help native plants by removing invasive plants



Thank You

Look forward to hearing your best practices & questions during Q&A!



Language of Invasive Species: Common Names

Leigh Greenwood
Forest Health Program Director
Natural Climate Solutions
North America Region



UGA1241013



ENTOMOLOGICAL
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"The purpose of common names is to make communication easier between scientists and the public audiences they serve. ... **names that are unwelcoming to marginalized communities run directly counter to that goal.**"

- ESA President Michelle S. Smith.

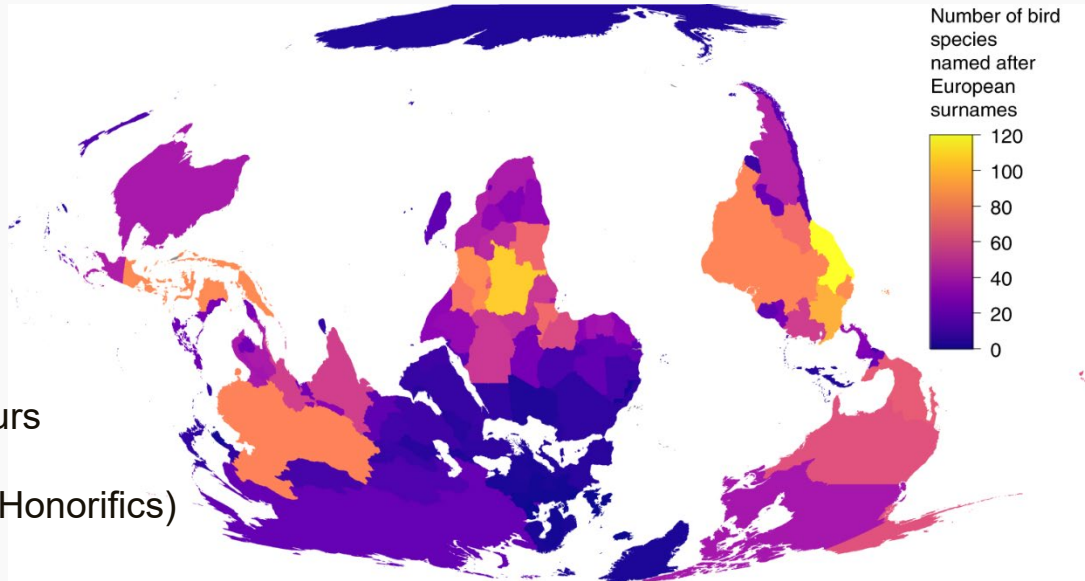
"Words matter ... Consideration of these replacements is a **big step forward in our efforts to remove derogatory terms** whose expiration dates are long overdue."

- US Secretary of the Interior Deb Haaland.

THE NATURE CONSERVANCY 2

Photo credit: R. Lindroth

Common (and latin) names can be problematic



- Outright slurs
- Eponyms (Honorifics)
- Geographic names

Trisos et al 2021, Fig. 1: The fingerprint of colonialism on ecology today.

From: [Decoloniality and anti-oppressive practices for a more ethical ecology](#)

Example Naming Guidelines for NEW names

From Entomological Society of America, Common Names Rules and Guidelines

(<https://entsoc.org/publications/common-names/use-submission>)

Here are some of their “Do’s”

- **Most names have two parts**, one indicating the family or group, and the other a modifier.
- Distinctive **physical features that well differentiate** the species are useful.
- Other useful descriptive terms may derive from features such **as habitat of the species, host associations, biome, life stage and aspect of seasonal life cycle.**
- Specific words used as modifiers (adjectives, adverbs) in a common name should be easily pronounced and **generally understandable by a broad public audience.**

Rainbow trout

Longnose gar

Creek chub

Prickly sculpin

Example Naming Guidelines for NEW names

From Entomological Society of America, Common Names Rules and Guidelines

(<https://entsoc.org/publications/common-names/use-submission>)

Here are some of their “Don’ts”

- Common names with words that unnecessarily **incite offense, fear or promote negative emotional reactions** (e.g., epidemic, murder, invasive) are strongly discouraged.
- Descriptors of **cultures, populations, ethnicity, race, and industries/occupations** are generally not acceptable.
- The **use of a geographic descriptor in a common names proposal is generally discouraged...**

Murder hornets **Killer** whales **Oriental** rat flea **Japanese** beetle

The ESA created a new process in 2021 for all renaming, not just naming.

- Same general do's and don'ts as prior listing
- Robust and community-based process to ensure inclusion of key groups and interests
- Online form for any ESA interested party to submit names for re-evaluation
- Special considerations: for *L. dispar*, this meant names related in any way to stereotypes or themes related to Roma (Romani) people were also excluded, even if deemed biologically accurate.



Let's dig into *Lymantria dispar*



Photo credit: J. Lindholm

Lymantria dispar Process and Timeline

- **Late summer 2021 ESA convened an L dispar working group**
 - ~50 total members self selected to join, including Canadian representative from Entomological Society of Canada (ESC-SEC)
- Using the new **Better Common Names Project** working process and structure across Fall and Winter 2021
 - Called for candidate new names (over 160)
 - Researched native range names in local languages (over 60)
 - Working group vote and comment to winnowed to top selections (down to ~30)
 - Public poll to assess popularity and pitfalls (down to 7 names)
 - Final decision based on poll and feedback
- **Name finalized in January 2022 was spongy moth**



A Tale of ~~Two~~ MANY Moths

Lymantria dispar, now named **spongy moth** via **ESA Better Common Names Project**

- Conversations in 2020, pre-work in early 2021
- Working group convened July 2021 – December 2021
- Announcement of new name January 2022

Internationally held regulatory terminology

- Conversations in 2021 and early 2022
- New name selected and internally confirmed in September

● LIVE

AGM (flighted spongy moth complex)



- An eradication program via aerial spray was conducted in Langley, BC (spring 2022) following the detection of 2 moths in fall 2021
- 2022 delimitation survey results will inform next steps
- Vessel certification program – very few detections during the 2022 season
- Will be transitioning to the name flighted spongy moth complex (FSMC) to refer to the group of moths previously referred to as AGM



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Closely related six species of Lymantrids

- Pre-work in early 2022
- Working group convened June 2022 – October 2022
- Proposal accepted THIS WEEK by **Common Names Committee** (*good timing!*)
- Comment period is now open: <https://entsoc.org/publications/common-names/proposed>



L. monacha



L. mathura

Context of eradication and government control

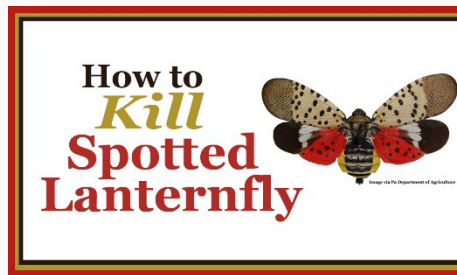
- The context around invasive species management amplifies this issue
- Names associated with groups of people- whether ethnic, geographic, or other groups- can cause harm
- All geographic names are problematic- by stating some geographies are neutral, the underlying bias becomes apparent



YOU NEED TO KILL
THIS INSTAGRAM-
WORTHY BUG ON
SIGHT



lifesavvy



MENTAL FLOSS

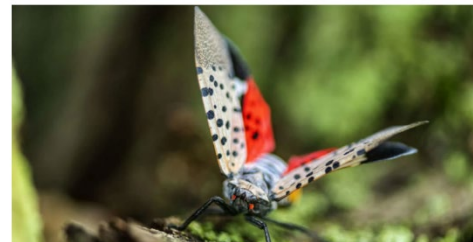
AMAZING FACTS • BIG QUESTIONS • ENTERTAINMENT • HISTORY • LISTS • LIFE SNAKES • QUIZZES • SCIENCE • ALL STORIES

ANIMALS

If You See a Spotted Lanternfly, Officials Say 'Kill It! Squash It, Smash It ... Just Get Rid Of It!'



By Ellen Gatoskey
Aug 31, 2023



What To Know About The Spotted Lanternfly Invasion

| 9/21/22 6:15AM | Alerts



Officials in multiple states have put out orders to kill spotted lanternflies on sight. *The Onion* answers common questions about the spotted lanternfly and its presence in the U.S.

Q: What is a spotted lanternfly?

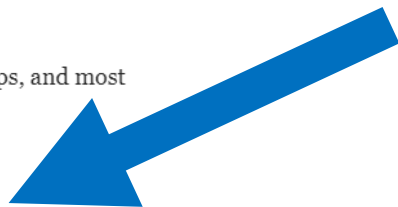
A: An invasive insect that threatens trees, commercial crops, and most terrifying of all, vineyards.

Q: Where do they come from?

A: If we tell you, do you promise not to be racist about it?

Q: What do they want?

A: To wine New Jersey off the map



It is in your power to frame these changes as an opportunity

- The conservation community has an opportunity to do better; names can be **more accurate and descriptive of the physical or behavioral characteristics**.
- We can choose to find new names that serve us for outreach, early detection, and education on invasive species.
- **We can choose to make science and conservation more inclusive in this space.**



Who's in charge here, anyways?


- **Insects and related arthropods** – Entomological Society of America
- **Birds** – American Ornithological Society
- **Fish** – American Fisheries Society
- **Herps** – Society for the Study of Amphibians and Reptiles
- **Some terrestrial invasive plants** – Weed Science Society of America
- *No other taxonomic group in the USA that we know of has a clear history of naming authority in **US-based English language common names***



Thank you!

Email me at
LGreenwood@tnc.org
to learn more





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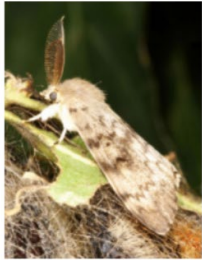
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'Spongy Moth' Proposed as New Common Name for *Lymantria dispar*

Translation of French name based on destructive forest pest's sponge-like egg masses

Annapolis, MD, January 25, 2022—A group of entomologists at the Entomological Society of America (ESA) proposed the "spongy moth" as the new common name for *Lymantria dispar*. The name was used in France and refers to the moth's "gypsy moth" as the name in *Names of Insects*. The name was removed from the list for the Romani people.

ESA members are open for discussion by the ESA Common Name Board. ESA members can vote on the name through February 8.



Lymantria dispar moth

Photo credit: J. Lindholm