



# **Protecting Endangered Species from Pesticides: Why It Matters?**

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## Courts Increasingly Impatient with EPA's Non-Compliance

It's déjà vu all over again. EPA comes before this court once more because of its **failure to abide by the law**....EPA cannot flout the will of Congress—and of the people—just because it thinks it is too busy or understaffed.

Center for Food Safety v. Regan, Dec. 2022, 9<sup>th</sup> Circuit

“Before registering a pesticide, EPA must consult with the statutorily specified agencies that have expertise on risks to species’ survival. But for decades EPA **routinely skipped that step** when it registered pesticides....”

Center for Biological Diversity v. EPA, Dec. 2022, DC Circuit

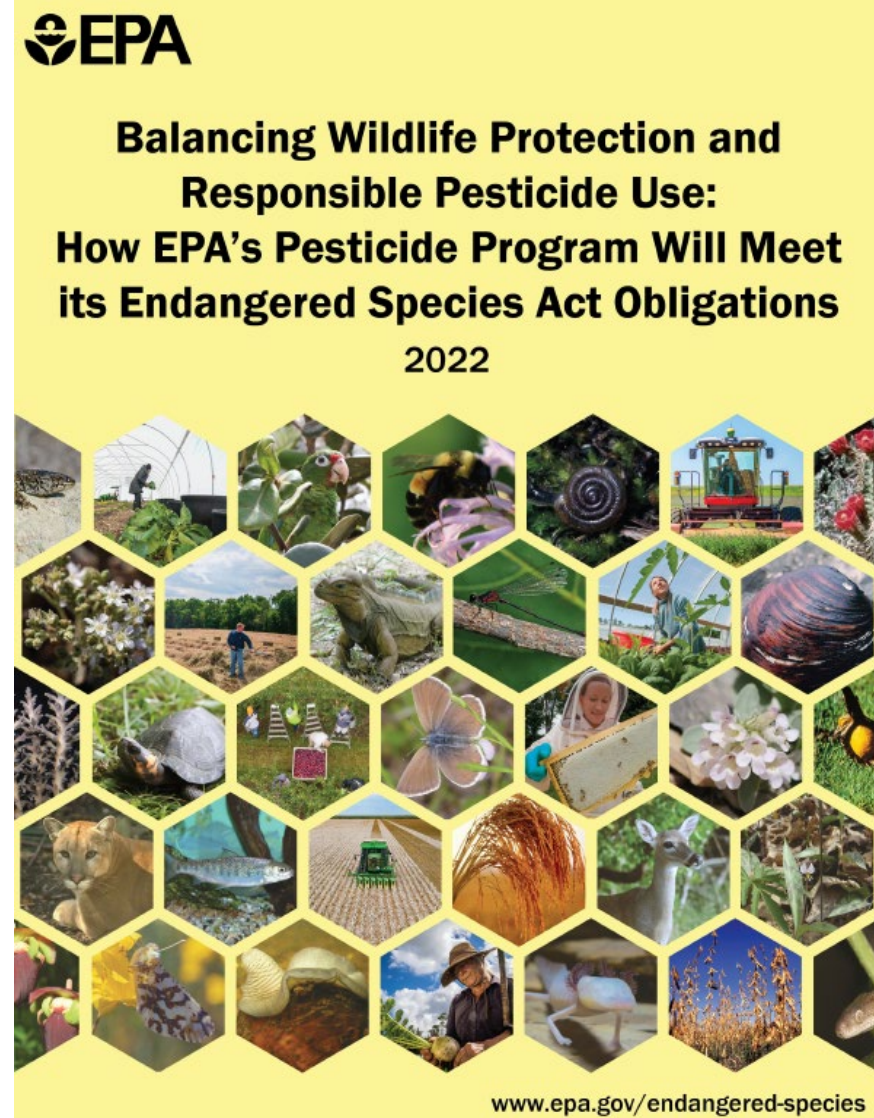
EPA has long had a **fraught relationship with the ESA**. It has made a habit of registering pesticides without making the required effects determination.

In re: Center for Biological Diversity and Center for Food Safety, Nov. 2022, DC Circuit

# April 2022 Workplan

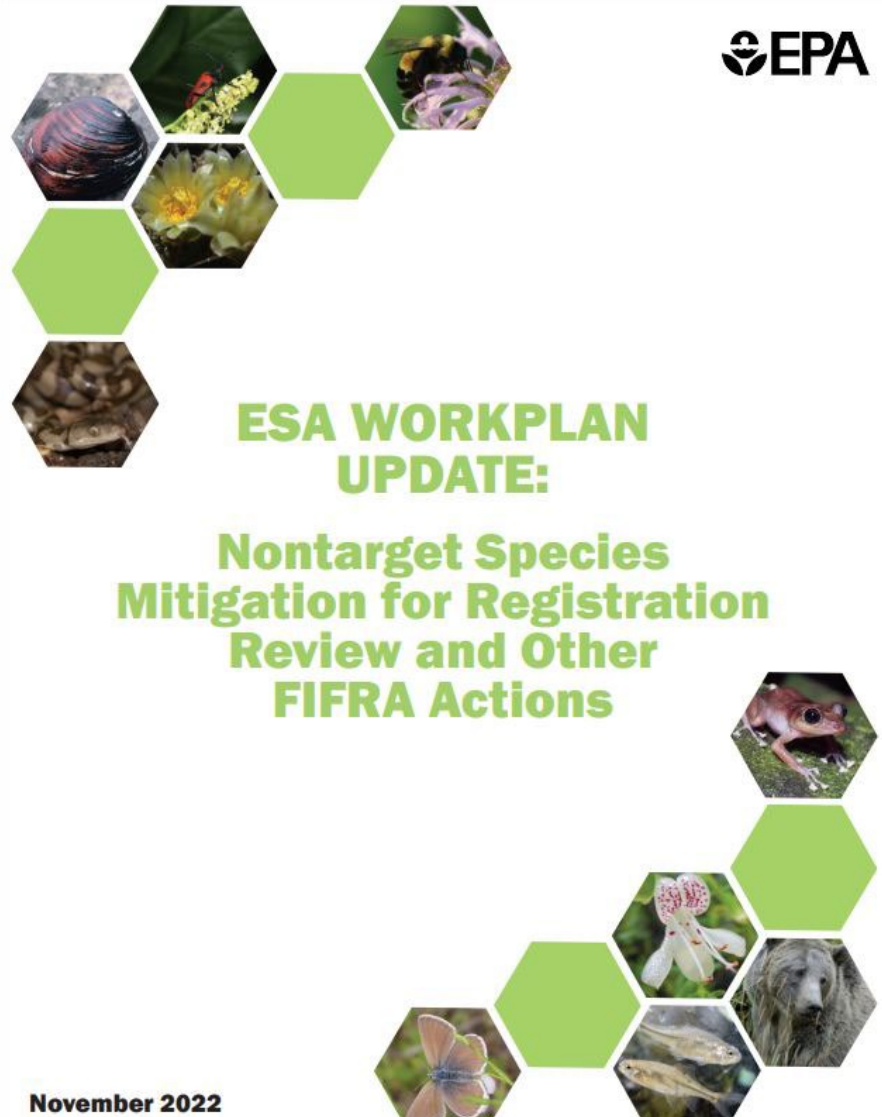

- Prioritize FIFRA actions for ESA compliance
- Early mitigation
- More efficient approaches

[https://www.epa.gov/system/files/documents/2022-04/balancing-wildlife-protection-and-responsible-pesticide-use\\_final.pdf](https://www.epa.gov/system/files/documents/2022-04/balancing-wildlife-protection-and-responsible-pesticide-use_final.pdf)





# ESA Workplan Update – November 2022



**ESA WORKPLAN  
UPDATE:**

**Nontarget Species  
Mitigation for Registration  
Review and Other  
FIFRA Actions**

**November 2022**

- FIFRA Interim Ecological Mitigation
- Endangered Species Protection Bulletins and Bulletins Live Two!
- Additional ESA Strategies



# FIFRA Interim Ecological Mitigation

- Under FIFRA, EPA is placing greater emphasis on addressing ecological risks while considering benefits and impacts of mitigation
  - Reduce risks to all nontarget species identified in a FIFRA risk assessment
  - Reduce exposure to listed species



# FIFRA Interim Ecological Mitigation

- EPA has developed a menu of FIFRA Interim Ecological Mitigation measures
  - Focuses on agricultural crops uses of conventional and biological pesticides
  - Proposing in registration review, to be adapted to new use registrations
  - To be adjusted to account for varying risks and benefits of the pesticide
  - Proposed for inclusion on product labels (not Bulletins)
- FIFRA Interim Ecological Mitigation measures do not include
  - Pesticide-specific measures (e.g., application rate reductions)
  - Listed species-specific mitigation measures being developed for ESA Pilots
  - Mitigation measures being developed for listed species under Additional ESA Strategies



# FIFRA Interim Ecological Mitigation

- Other Proposed Label Language
  - Requiring Link to Bulletins Live! Two (BLT) System
  - Advisory language for insect pollinators
    - Pollinator Hazard Statement
    - Best Management Practices for Pollinator Protection
  - Incident reporting language
  - Treated seed language
    - Labeling for Products with Seed Treatment Uses
    - Instructions for Seed Bag Tags



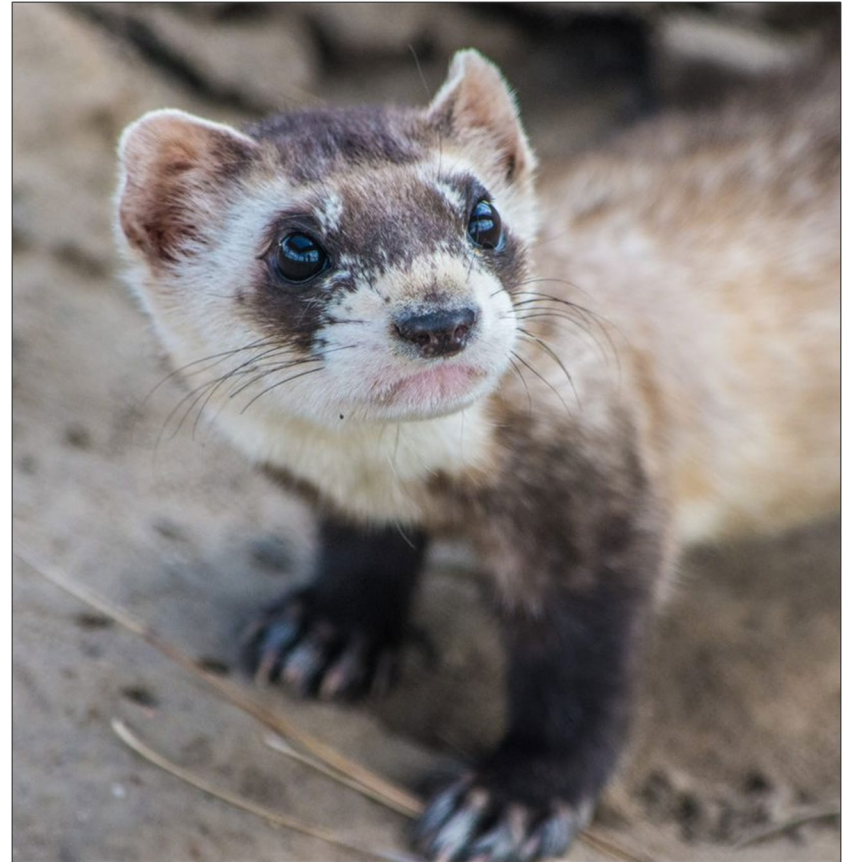
# FIFRA IEM Public Comments – Next Steps

- Comprehensive comment review for each topic area, based on
  - ESA Workplan Update Appendix comments
  - Public comments on proposed decisions – atrazine, carbaryl, dicloran (DCNA), etofenprox, methomyl, norflurazon, thiophanate methyl and carbendazim (TM/MBC)
- Update mitigation and other label statements for forthcoming EPA decisions, considering
  - Additional mitigation proposed in comments
  - Mitigation opportunities and challenges identified for different regions and crop uses
  - Specific label language recommendations



# FIFRA IEM Public Comments – Next Steps

- Continuous improvement as additional comments are received on chemical cases and ESA strategies
- Ensure coordination of label language and mitigation approaches across FIFRA and ESA work
- Continue coordinating closely with USDA on the nexus between NRCS Conservation Practice Standards and EPA pesticide mitigation measures
  - EPA plans to provide more information about its work on this issue later in 2023



# Strategies to Expedite Progress on ESA Workplan

- Vulnerable Species
  - Identify mitigation measures for a subset of listed species with limited ranges and where pesticides identified as a stressor
- Group assessments and mitigations based on:
  - Pesticide type or use
    - Ex. Herbicides - broad approach to address spray drift and runoff from treated fields to minimize exposure to listed plants avoiding jeopardy/ adverse modification.
  - Region
    - Develop a cross-pesticide approach to address listed species and designated critical habitats in Hawaii



# Vulnerable Species Pilot

- Develop a broad approach to reduce spray drift and runoff transport from treated fields to minimize exposure to a subset of listed species that are particularly vulnerable to pesticides
- Goal is to reduce the likelihood of jeopardy and adverse modification for these federally listed species and their critical habitats
- Scope
  - 27 species with small ranges



# Pilot species

- Insects
  - Poweshiek skipperling
  - Rusty patched bumble bee
  - Taylor's checkerspot
  - American burying beetle
- Aquatic invertebrates
  - Madison cave isopod
  - Riverside and San Diego fairy shrimp
  - Ouachita rock pocketbook
  - Rayed bean
  - Scaleshell mussel
  - Winged mapleleaf
- Plants
  - Lake Wales ridge species (n = 7)
  - Mead's milkweed
  - Leedy's roseroot
  - Okeechobee gourd
  - Palmate-bracted bird's beak
  - White bluffs bladderpod
- Fish, Amphibians, Birds, Mammals
  - Ozark cavefish
  - Attwater's prairie chicken
  - Buena vista lake ornate shrew
  - Wyoming toad

# Approach to Drafting Mitigations

- Mitigations captured in draft bulletins
  - Identified pesticide use limitation areas (PULAs)
  - Drafted pesticide use limitations as proposed language for bulletins
- Mitigations intended to be as simple and broad as possible
  - Apply to application method
  - Likely to be applied broadly to pesticides (if no specific pesticide use in the PULA, then no mitigation required)
- Where it makes sense, apply the same mitigations across species
  - Consider species life history, habitat, relevant use sites
  - Consider species-specific timing restrictions, as appropriate
  - Mitigations could include avoidance in key areas inhabited by species



# Vulnerable Species Pilot Timeline

Release for  
Public Comment  
June 2023


Consideration of  
Comments  
Fall 2023

Final Mitigations  
Released  
December 2023



# Herbicide Strategy

- Develop a broad approach to reduce spray drift and runoff transport from treated fields to minimize exposure to listed plants and listed species that depend on plants from the use of herbicides
- Goal is to reduce the likelihood of jeopardy and adverse modification for federally listed plants and listed species that depend on plants
- For future herbicide biological evaluations and consultations, EPA and the Fish and Wildlife Service (FWS) would focus on potential effects not addressed in this strategy
  - Example: effects to animals on the treated field or newly listed species
- Scope
  - Agricultural use patterns
  - Listed plants in the conterminous United States
  - Listed species that depend on plants



**Temboatrione**  
(238 ml/ha) - Stetesmero  
surfactant (1000 ml/ha)  
post-emergence at  
20 DAS





# Considerations in the Herbicide Strategy

- Which mitigation measures can be readily implemented by growers?
- Which mitigation measures are most effective and in which situations can they be applied?
- What best management practices resource materials are commonly used by growers or readily available for different mitigation measures?
- What is the prevalence on the use of different mitigation measures for different crops and regions?
- How will criteria for mitigations needed differ for different crops and regions?



# Examples of Mitigations to Reduce Runoff and Erosion

## Adjacent to the field mitigations

- Vegetative filter strip
- Riparian buffer strip

## On-field Mitigation

- Cover crop
- No or reduced tillage, residue tillage management, strip tillage
- Mulching or compost addition
- Contour farming
- Terrace farming/field terracing
- Strip or alley cropping

## Controlled Drainage

- Grassed waterways
- Retention pond/Constructed wetland





# Example Mitigations to Reduce Spray Drift

- Buffer distance between the application and sensitive area
- Coarser droplet size
- Lower release height
- Hooded sprayers
- Windbreak/hedgerow
- Others





# Herbicide Strategy Timeline

Development  
Spring 2023

Release for  
Public Comment  
June/July 2023

Consideration of  
Comments  
Fall 2023

Final Strategy  
Released  
December 2023





# Regional Strategies: Hawaii



# Considerations for Hawaii Strategy

- The goal is for EPA and the Fish and Wildlife Service (FWS), with the input of select stakeholders, to agree on how EPA's pesticide decisions can efficiently comply with the ESA for HI listed species
- One way is by grouping the species and critical habitat into bins based on the type of pesticide exposure
  - Where aerial drift may occur following pesticide applications
  - Areas that receive pesticide surface water run-off
  - Agricultural land
  - Non-agricultural uses such as golf course
  - Highly remote areas

# Considerations for Hawaii Strategy

- For each bin, EPA will
  - Develop a framework for deciding what type of mitigation, if any, is needed for all species and critical habitat in that bin;
  - Identify mitigation measures;
  - Determine when and how to adopt those measures in its pesticide decisions; and
  - Seek FWS agreement on how to efficiently comply with the ESA for each bin
- Timeline
  - Development Spring/Summer 2023
  - Workshop: Targeting Fall 2023

Thank You!

