

Understanding Permits for Organisms Regulated by DPI

August 27, 2021

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Taylor Smith – Biological Scientist III

FDACS-Division of Plant Industry
1911 SW 34th Street, Gainesville, FL 32608



OVERVIEW

- Plant Health Regulatory Authority
 - Federal and State Collaboration
- What types of permits are important?
 - Movement of Regulated Organisms - Federal PPQ 526 vs. State FDACS-08208
 - Special Citrus Permits
- When & why do you need permits?
- Obtaining a Permit: Application & Review Process
- Contacting the FDACS-DPI Permit Unit

Plant Health Regulatory Authorities



Animal and Plant Health Inspection Service
U.S. DEPARTMENT OF AGRICULTURE (APHIS-PPQ)

MISSION OF USDA APHIS-PPQ

"To safeguard the health, welfare and value of American agriculture and natural resources."



Florida Department of Agriculture and Consumer Services
Division of Plant Industry (FDACS-DPI)

MISSION OF FDACS-DPI

"...works to detect, intercept and control plant and honeybee pests that threaten Florida's native and commercially grown plants and agricultural resources."

Federal and State Collaboration

APHIS-PPQ Objective: Prevent damaging plant pests and diseases from entering and spreading in the United States to promote plant and animal health.

- Collaborate and work with states to reduce risk pathways
- Support disease and pest-free zones and animal and plant pest and disease pathway analyses and risk assessments
- Identify sources of introductions and determine mitigations to prevent new introductions
- Obtain timely information on pests, diseases, trends and changing risk patterns; monitor and prevent the spread and introduction of pests and diseases
- Develop regional cooperation and awareness
- Conduct risk assessments for permits

Types of Permits

Federal: PPQ 526

United States Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection & Quarantine
4700 River Road
Riverdale, MD 20737

Permit to Move Live Plant Pests, Noxious Weeds, and Soil Interstate Movement Regulated by 7 CFR 330

This permit was generated electronically via the ePermits system

| | | | |
|-------------------------|-------------------------------------------------------------------------------------------------------|----------------------------|-----------------|
| PERMITTEE NAME: | Dr. Eric Rohrig | PERMIT NUMBER: | P526P-20-00175 |
| ORGANIZATION: | Florida Department of Agriculture and Consumer Services | APPLICATION NUMBER: | P526-191107-040 |
| ADDRESS: | 1911 SW 34th Street Division of Plant Industry Gainesville, FL 32608 | FACILITY NUMBER: | N/A |
| MAILING ADDRESS: | 1911 SW 34th Street Division of Plant Industry Gainesville, FL 32608 | HAND CARRY: | Yes |
| PHONE: | 3523954744 | DATE ISSUED: | 01/10/2020 |
| FAX: | | EXPIRES: | 01/10/2023 |
| DESTINATION: | Florida Department of Agriculture & Consumer Services-DPI, 1911 SW 34th Street, Gainesville, FL 32608 | | |
| RELEASE: | No | | |

Under the conditions specified, this permit authorizes the following:

| Regulated Article | Life Stage(s) | Intended Use | Shipment Origins | Originally Collected | Culture Designation |
|----------------------|---------------|---------------------------------------------------------|------------------|-------------------------------------------------------|---------------------|
| Halyomorpha halys | Any | Research - Greenhouse (growth chamber and lab included) | U.S. | Originally Collected from Within the Continental U.S. | |
| Trissolcus japonicus | Any | Research - Greenhouse (growth chamber and lab included) | U.S. | Originally Collected from Within the Continental U.S. | |

PERMIT GUIDANCE

- 1) This permit does not authorize movement or release into the environment of genetically engineered organisms produced with the regulated organisms described in this permit. Importation, interstate movement, and environmental release of genetically engineered plant pests require a different permit issued under regulations at 7 CFR part 340. Any unauthorized interstate movement or environmental release, including accidental release, of a regulated GE organism would be a violation of those regulations. Additional guidance and contact information for APHIS Biotechnology Regulatory Services, can be found at: <https://www.aphis.usda.gov/aphis/ourfocus/biotechnology>.
- 2) If an animal pathogen is identified in your shipment, to ensure appropriate safeguarding, please refer to http://www.aphis.usda.gov/import_export/animals/animal_import/animal_imports_an

Permit Number P526P-20-00175

THIS PERMIT HAS BEEN APPROVED ELECTRONICALLY BY THE FOLLOWING
PPQ HEADQUARTER OFFICIAL VIA EPERMITS.

Carlos A. Blanco
Carlos Blanco

DATE

01/10/2020

WARNING: Any alteration, forgery or unauthorized use of this Federal Form is subject to civil penalties of up to \$250,000 (7 U.S.C.s 7734(b)) or punishable by a fine of not more than \$10,000, or imprisonment of not more than 5 years, or both (18 U.S.C.s 1001)

MOVEMENT INTO THE COUNTRY OR STATE

USDA-APHIS-PPQ safeguards U.S. agriculture and natural resources against the entry, establishment, and spread of economically and environmentally significant pests, and facilitates the safe trade of agricultural products.



An official website of the United States government [Here's how you know](#) ✓



eAuthentication

U.S. DEPARTMENT OF AGRICULTURE

HOME

CREATE ACCOUNT

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eAuth Home

Delivering easy to obtain,
secure and private online
access to USDA programs
and services.





NICOLE "NIKKI" FRIED
COMMISSIONER

Florida Department of Agriculture and Consumer Services
Division of Plant Industry

APPLICATION AND PERMIT TO MOVE ORGANISMS
REGULATED BY THE STATE OF FLORIDA

Section 581.083, 581.211, F.S./Incorporated in Rule 5B-57.004, F.A.C.
Referenced in Rule 5B-2.010, F.A.C.
1911 S.W. 34th Street/PO Box 147100, Gainesville, Florida 32614-7100
Phone: (352)395-4700 Fax: (352)395-4814

Remit online payment at
www.FreshFromFlorida.com
Or
Check or Money order payable
to:
FDACS
P.O. Box 6720
Tallahassee, FL 32314-6720

| Page ____ of ____ THIS SECTION TO BE COMPLETED BY STATE OFFICIAL | | | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------------------------------------------------|--------------|---------------------------------------------------|--------------------------|
| Permit Number | <input type="checkbox"/> Approved <input type="checkbox"/> Disapproved <small>*If disapproved, see Notice of Administrative Hearing on Page 8.</small> | | Conditions | | | | |
| | Signature | | | | | | |
| Valid Until | Title | | | | | | |
| | Date | | | | | | |
| THIS SECTION TO BE COMPLETED BY APPLICANT | | | | | | | |
| 1. Renewal of Permit? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, indicate permit number | | 2. Name: _____ Business Name: _____ Physical Address: _____ City, State Zip Code: _____ | | Title: _____ | | | |
| | | 3. Mailing Address: _____ City, State Zip Code: _____ | | | | | |
| 4. Telephone No. _____ | | 5. Fax No. _____ | | 6. Email Address _____ | | | |
| 7. I/We agree to comply with the stipulations of this agreement, and understand that a permit may be subject to other conditions specified. | | | | | | | |
| Signature of Applicant _____ | | | | Date _____ | | | |
| 8. Type of Organisms to be Moved <input type="checkbox"/> Arthropods <input type="checkbox"/> Plant Pathogens <input type="checkbox"/> Nematodes <input type="checkbox"/> Noxious Weeds <input type="checkbox"/> Genetically Altered Organisms <input type="checkbox"/> Biological Control Agents <input type="checkbox"/> Other (Specify): _____ | | | | | | | |
| Scientific Names of Organisms to be Moved | | Classification (Order, Family, Other) | Life Stages | Number of Specimens | Shipped From | In U.S. Yes/No | Host Material Included |
| 9. _____ | | _____ | _____ | _____ | _____ | <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> |
| 10. _____ | | _____ | _____ | _____ | _____ | <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> |
| 11. _____ | | _____ | _____ | _____ | _____ | <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> In addition to the above listed organisms, additional organisms to be moved are listed starting at Line # 34 | | | | | | | |
| 12. Number of Shipments | | 13. Port of Arrival | | 14. Approximate Date of Arrival or Interstate Movement | | | |
| 15. Destination/Location of Movement | | 16. Method of Shipment <input type="checkbox"/> Air <input type="checkbox"/> Air Freight <input type="checkbox"/> Auto <input type="checkbox"/> Baggage | | | | | |
| | | 17. <input type="checkbox"/> Other (Specify) | | | | | |
| 18. Supplier No. 01 - Name & Address | | 19. Supplier No. 02 - Name & Address | | 20. Supplier No. 03 - Name & Address | | | |
| 21. General Purpose of Request (Be specific) | | | | | | | |
| 22. Intended Use (Be specific) | | | | | | | |
| 23. Methods to be Used to Prevent Organisms Escape (Be specific) | | | | | | | |

Standards and Safe Guards of Permit: 1). All organisms must be shipped in sturdy, escape-proof containers. 2). Upon receipt, all packaging material and shipping containers shall be sterilized or destroyed immediately after removing organisms. 3). Organisms shall be kept only within the laboratory at the permittee's address. 4). No living organisms kept under this permit shall be removed from confined area except by prior approval from this office. 5). Without prior notice and during reasonable hours, authorized State Regulatory Officials shall be allowed to inspect the conditions under which the organisms are kept. 6). All organisms kept under this permit shall be destroyed at the completion of the intended use, and not later than the expiration date. 7). All necessary precautions must be taken to prevent escape. In the event of an escape, notify this office.

Under authority of Chapter 581.083, Florida Statutes (FS), and Rule Chapter 5B-57, Florida Administrative Code (FAC), permission is hereby granted to the applicant named above to move the organisms described, except as deleted, subject to the conditions stated on, or attached to, this application. This permit not valid unless signed by an official authorized representative of the department. Failure to comply with stipulations of this agreement may result in penalties as stipulated in Rule 5B-57.0010, FAC, and Section 581.211, FS. If disapproved, see Notice of Administrative Hearing on Page 8.

FDACS-08208 Rev. 01/13
Page 1 of 8

FDACS-08208

MOVEMENT WITHIN THE STATE

FDACS-DPI is comprised of 5 Bureaus designed to protect Florida's plant and apiary industries:

- Citrus Budwood Registration
- Entomology, Nematology, Plant Pathology (ENPP and Botany)
- Methods Development & Biological Control
- Pest Eradication & Control
- Plant & Apiary Inspection

The **Permit Unit** is comprised of scientists and Administrators from these Bureaus. The Permit Unit reviews and enforces compliance with state-issued permits.



Scan the QR code for a PDF version of the application.



NICOLE "NIKKI" FRIED
COMMISSIONER

Florida Department of Agriculture and Consumer Services
Division of Plant Industry

APPLICATION TO INTRODUCE CITRUS PLANTS
AND CITRUS PLANT PARTS

Section 581.182, F.S. / Rules 5B-3.003(8) and 5B-62.005, F.A.C.

22004 North State Road 121, Alachua, FL 32615 / Phone: (352)
395-4992 Email: Kristen.Helseth@FDACS.gov

To: Administrator, Florida Citrus Repository
Florida Department of Agriculture and Consumer Services
22004 North State Road 121, Alachua, FL 32615

From: _____
(Applicant's Name, Address & Telephone Number)

I. DESCRIPTION OF REGULATED MATERIAL:

- A. Botanical name _____
Common name (s) _____
- B. Plant parts desired _____ Amount _____
(Bulbs, Buds, Corms, Complete plants, Cuttings, Leaves, Seed, Etc.)
- C. Supplier _____
- D. Present location _____
- E. USDA Import Permit Number (if required) _____

II. PROPOSED USE: _____

III. JUSTIFICATION FOR INTRODUCTION: _____

IV. PROPOSED HOLDING SITE: _____

Applicant's signature

(Do not write in this space)

Disapproved _____ Approved _____

CONDITIONS _____

DIRECTOR, DIVISION OF PLANT INDUSTRY _____

SPECIAL CITRUS PERMITS

Any movement of
citrus plants/parts
and **plant pathogen**
infected stock

requires special
research and planting
permits that are
reviewed by DPI
scientists within ENPP
as well as Bureau of
Citrus Budwood
Registration.

These forms also
need the Division
Director's approval.



NICOLE "NIKKI" FRIED
COMMISSIONER

Florida Department of Agriculture and Consumer Services
Division of Plant Industry

APPLICATION AND PERMIT TO PLANT
CITRUS PATHOGEN INFECTED STOCK

Section 581.031(16)(26), F.S. / Rules 5B-62.005, .026(5), F.A.C.

Bureau of Budwood Registration
3027 Lake Alfred Rd. (Hwy 17), Winter Haven, FL 33881-1438 / PH: 863-298-3041 / FAX 863-298-3050

| | |
|--------------------------------------------------------------------------------------------------------------------------------------------|---------|
| Name and Address | |
| Phone No. | FAX No. |
| Signature of Applicant: | Date: |
| Check One: <input type="checkbox"/> Pathogen <input type="checkbox"/> Scion/Rootstock Trial Planting <input type="checkbox"/> Escape Trees | |

Pathogen Trial Planting:

- State general purpose of request. (Answer may be provided on a separate sheet of paper)
- What are the benefits of this planting? (Answer may be provided on a separate sheet of paper)
- Pathogen(s) to be used. If known, list isolate(s), origin of pathogen, and distribution in Florida. _____
- Type of pathogen virus _____ viroid _____ other _____
- Insect vectored? _____ If yes indicate vector: _____ Mechanically transmitted? _____
- Sanitary procedures to be used in the planting and nursery _____
- Conditions at the planting site (posted? fenced?) _____
- Host Plant (Orange, grapefruit, etc) _____
- Location of planting _____
- Similar pathogens in same area? _____
- Distance to adjacent citrus _____ Distance to nearest citrus nurseries _____
- Approximate date of planting _____ Estimated duration of planting _____
- Size of planting _____

Other conditions _____

Scion/Rootstock Early Evaluation (EE) Trial Plantings or (ES) Escape Tree Trial APlantings
Restrictions for breeding program scion and rootstock trials:

- The permit only for endemic pathogens and allows propagation and planting of trees under the following conditions.
- Trials limit of ten acres per cultivar.
- Ten location maximum for reach cultivar.
- Trees cannot be grown in the same greenhouse area as commercial nursery stock.
- Record of propagation of EE or ES material must be submitted on a Bud Cutting Report, FDACS 08172, Rev. 03/14.
- Write the trial planting location on the Record of Planting portion of the Bud Cutting Report.
- Mark the Bud Cutting Report clearly **For EE Trial or ES Trial**.
- The Bud Cutting Report is the limited permit for each planting.

| Permit | |
|-----------------------------------|------------|
| Signature Division Director _____ | Date _____ |
| Conditions of Approval: | |

Other Permits Reviewed or Issued by DPI

- Federal
 - Foreign soil (525), post-entry quarantine (546), biotechnology regulatory services (BRS), controlled import (588)
- State
 - Noxious weeds
 - Native Plant Harvesting: Commercially exploited and endangered species
 - Aquatic plants (prohibited and non-prohibited spp.)
 - Non-Native Planting Permit
 - Special permits and compliance agreements: citrus, Australian pine, etc.
 - Hemp Cultivation Licenses



Some permits are not handled by DPI



Some aquatic organisms (invertebrates, mollusks, and plants) are handled by FL Fish & Wildlife Commission (FWC) and FDACS Division of Aquaculture.



Mosquito control is handled by FDACS Division of Agricultural Environmental Services, (Oxytech permit). *DPI evaluates mosquito containment.*



Pests and diseases of domesticated animals (pets, livestock) are handled by USDA-APHIS Veterinary Services (VS) and FDACS Division of Animal Industry

When & why do
you need a
permit?

Importation & Movement of Non-Native/ Exotic Species - OR - Working with Organisms of Limited Distribution

Research (private industry, gov't, academia)

- Control, biological or otherwise
- Pathogens: Host resistance, inoculation trials
- Extraction for molecular diagnostics

Educational Exhibits & Demonstrations

- Zoos/butterfly houses
- Schools
- Tradeshows

Commercial resale

- Feeder arthropods (reptiles & amphibians)
- Pets and hobbyist collections
- Ornamental purposes and landscaping

Environmental release

- Biocontrol agents
- Soil microbes: amendments, control
- Butterflies (celebratory events)

Levels of Organism containment

**Will consider short-term projects
based on sound science with
standardized operating procedures*

Regular: permit generally approved.

- **Examples:** Florida native or naturalized species; cosmopolitan feeder insects; microbial soil amendments

Restricted A: lock them up. For any applicant. (BSL1)

- **Examples:** painfully venomous pets, giant millipedes, male hissing roaches; ubiquitous plant pathogens or those widespread in FL

Restricted B: lock them up well. Only for institutions, not typically approved for individuals* (BSL2)

- **Examples:** exotic phytophagous insects, praying mantises; citrus pathogens

Prohibited: WE DON'T WANT THEM HERE!

- **Examples:** exotic snails & slugs; exotic arthropods; foreign plant pathogens

DPI sees 1 new
state or
continental
record every 2
weeks!

Obtaining a Permit: Application & Review Process

Step-by-Step & FAQs For Applicants

- Who should apply?
 - *Primary Applicant* – responsible adult or project sponsor (teacher, parent, etc.)
 - *Secondary Research Assistant* – student(s) directly involved in conducting project
- When should an application be submitted?
 - *As early as possible* – once all details are planned out and a due date in mind!
- How do I apply for a permit?
 - Federal permits submitted online e-Permits
 - State via paper form and email submission to DPI-Permits@FDACS.gov
- When will a permit be approved?
 - *Varies* – depends on numerous factors but usually under 2 weeks
- Does it cost money?
 - The permit application process is free*
 - *fees may be assessed for voucher ID & curation of certain arthropods

What we look at: Organism Risk Factors

Immediate danger to
agronomic or
horticultural crops, or
native threatened plants

Known to be invasive
elsewhere (regional vs.
international)

Medically significant
(human or veterinary
concerns)

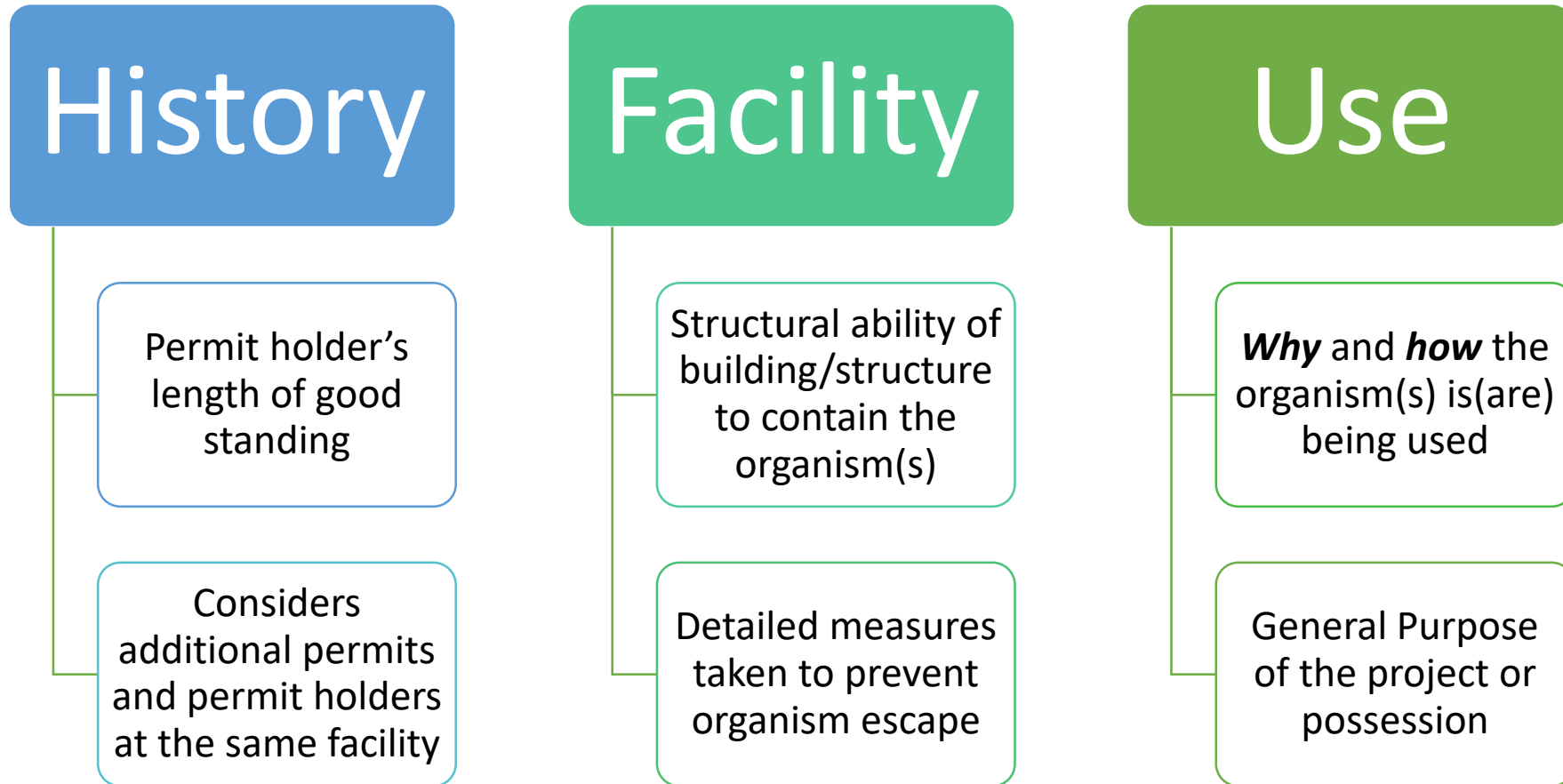
Efficient predators,
vectors, or disease-
causing agents

Ability to outcompete
and displace native
species

“Nuisance” factors

- Generalist feeders
- Fast reproducers
- Synanthropic
- Tend to aggregate

What we look at: Containment Risk Factors



Additional info that helps permit evaluation

- Standard Operating Procedures (SOPs) – the What, Where, and How organisms will be handled
 - Containment methods – S.E.E. approach
 - Devitalization and disposal methods
 - Description of transportation and shipment packaging
- Evidence to substantiate claims of safety
 - Experimental
 - Peer-reviewed



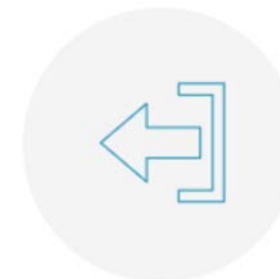
Security

Who has access to the container, shipment, or facility and when/how is it restricted (if at all)



Entry

Possible routes of water/air intake which pests or pathogens can use



Escape

Possible exit routes for pests, pathogens, or contaminated media from the facility

Original Infographic: N.Casuso

Common Containment Methods



General

- Limited access: locked room/cabinet/greenhouse

Arthropods/Invertebrates

- Appropriately sized mesh cages or tanks
- Snap or screw-on lidded containers

Multiple layers of containment is best!

Plant Pathogens

- Mesh cages and drainage traps for live inoculated material
- Sealed test tubes/vials or petri plates
- Growth Chamber, Biosafety Cabinet, Freezer





Biocontrol of **Argentine Cactus Moth** *Cactoblastis cactorum* (Berg) with **Braconid Parasitoid** *Apanteles opuntiarum* Martínez and Bertha



Black Bean Bug *Brachyplatys subaeneus* (Westwood)



Brown Marmorated Stink Bug (BMSB) *Halyomorpha halys* (Stål)



Giant African Land Snail (GALS) *Lissachatina fulica*



Horntail Snail *Macrochlamys indica* Benson



Active Research Projects
in the Florida Biological
Control Laboratory
(FBCL) Quarantine
Facility at DPI

Common Sterilization, Devitalization, & Disposal Techniques

- **AUTOClave:** preferred method of sterilization
- **ROUTINE DISINFECTION:** All work surfaces should be disinfected upon completion of an experiment and at the end of day with freshly prepared 10% bleach solution (1 part bleach to 9 parts water). Residual bleach should be washed off with 70% alcohol solution (EtOH or IPA) or water.
- **FINAL DISPOSITION:** For disposable items that cannot be autoclaved, they should be soaked in 10% bleach overnight, then double bagged for removal to trash destined to landfill.
- **ULTRA-LOW FREEZER** (-20 to -80C): may be utilized to store some microbial cultures other material may be stored for 48 hours to devitalize organisms prior to final disposition.

Transportation & Handling Considerations

Consider the following questions and plan ahead!

- Who will have access to my permitted material during the length of my project?
- Will material be hand-carried between different rooms/locations?
- Will I need to move material by vehicle?
- Will I need to mail any material to another location?
- How must material be stored to maintain viability?



Malaysian Walking Stick Insect
From: \$29.99

Select options



Moon Crab
From: \$14.99

Select options



Baby Vietnamese Centipede
\$19.99

Add to cart



Featherleg Camel Spider
\$39.99

Add to cart



Field Wolf Spider
From: \$9.99

Select options



Salem Ornamental Tarantula
From: \$99.99

Select options



Indian Ornamental Tarantula
From: \$69.99

Select options



Trinidad Olive Gold Tarantula
From: \$24.99

Select options



Giant African Millipede (Pre Order)
\$149.99

Add to cart



Red Island Tarantula
From: \$64.99

Select options



Pumpkin Patch Tarantula
From: \$24.99

Select options



Striated Orb Weaver
\$19.99

Add to cart

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Paederia foetida seeds

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NOXIOUS
WEED!

Internet Challenges: Commercial Sale

Invasiveness is linked to greater commercial success in the global pet trade

Jérôme M. W. Gippet^{a,1} and Cleo Bertelsmeier^{a,1}

^aDepartment of Ecology and Evolution, University of Lausanne, 1015 Lausanne, Switzerland

Edited by Nils Chr. Stenseth, University of Oslo, Oslo, Norway, and approved February 11, 2021 (received for review August 3, 2020)

The pet trade has become a multibillion-dollar global business, with tens of millions of animals traded annually. Pets are sometimes released by their owners or escape, and can become introduced outside of their native range, threatening biodiversity, agriculture, and health. So far, a comprehensive analysis of invasive species traded as pets is lacking. Here, using a unique dataset of 7,522 traded vertebrate species, we show that invasive species are strongly overrepresented in trade across mammals, birds, reptiles, amphibians, and fish. However, it is unclear whether this occurs because, over time, pet species had more opportunities to become invasive, or because invasive species have a greater commercial success. To test this, we focused on the emergent pet trade in ants, which is too recent to be responsible for any invasions so far. Nevertheless, invasive ants were similarly overrepresented, demonstrating that the pet trade specifically favors invasive species. We show that ant species with the greatest commercial success tend to have larger spatial distributions and more generalist habitat requirements, both of which are also associated with invasiveness. Our findings call for an increased risk awareness regarding the international trade of wildlife species as pets.

birds, 10,603 reptiles, 7,385 amphibians, and 32,851 fish (27–31)]. Invasive species (see Table 1 for definition) represent 12.6% of all traded species. We found that across all taxa and datasets, invasive species were strongly overrepresented in trade (Fig. 1). On average, invasive species were 7.4 times more frequent in trade than in the global species pool (mammals, 4.2–7.2; birds, 2.5–7.4; reptiles, 4.0–12.7; amphibians, 8.0–9.0; and fish, 7.2–13.1; χ^2 tests for each of the 14 datasets, $P < 0.0001$; Fig. 1 and SI Appendix, Table S1).

This remarkably consistent overrepresentation may arise because the pet trade specifically favors invasive species. However, this idea would be extremely difficult to test in vertebrates because they have been traded as pets for decades to centuries (4), and according to recent estimates, 53% of invasive vertebrate species have been introduced by the pet trade (i.e., 957 out of 1,822 species) (16). Therefore, invasive vertebrates could also be overrepresented in the pet trade simply because, over time, pet species had more opportunities to become invasive. These two processes potentially generating an overrepresentation of invasive species in the pet trade are not mutually exclusive and may sometimes act in conjunction.



Hot new fads: Terrestrial Isopods & Ants

Isopods

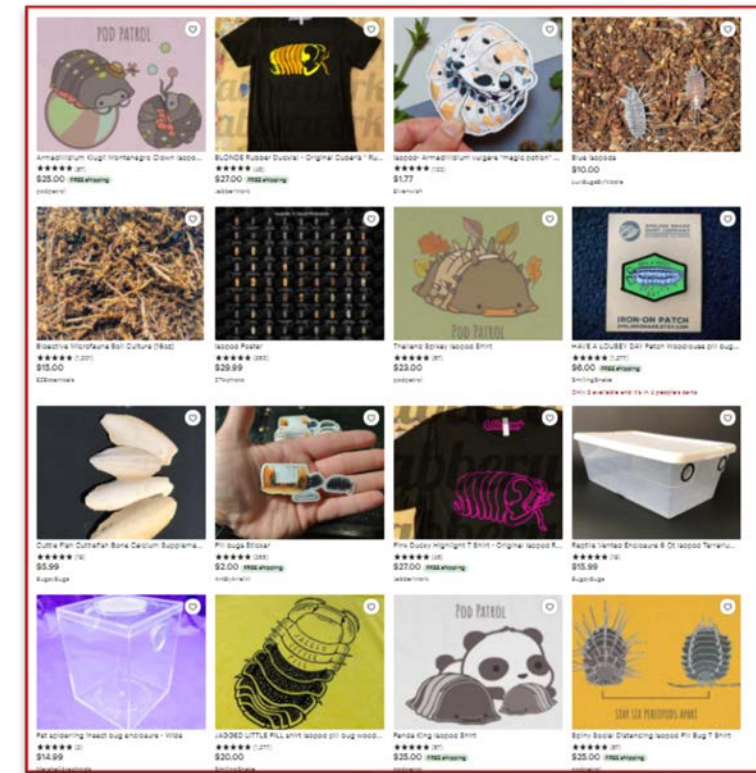
- Feeders and cleaners
- Bred for novelty patterns
- May reproduce quickly







Ants

- Leafcutter ants (Attini)
- Cost Texas forestry \$2.3 million/year
- Collapsed colonies like sinkholes

Response: Permit only the native or established species



| | | | |
|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Armadillidium Vulgare "Gem Mix" Isopods From: \$32.50 Select options | Porcellio Scaber "Spanish Orange" Isopods From: \$19.99 Select options | Porcellio Laevis "Caramel" Isopods From: \$19.99 Select options | Armadillidium Vulgare "Punta Cana" Isopods From: \$19.99 Select options |
|  |  |  |  |
| Porcellio Scaber "Lemonade" Isopods From: \$24.99 Select options | Porcellio Scaber "Pied" Isopods From: \$24.99 Select options | Armadillidium Nasatum "Wildtype" Isopods From: \$19.99 Select options | Armadillidium Vulgare "Orange Vigor" Isopods From: \$34.99 Select options |

- Reputable scientific biological suppliers
- Local researchers/institutions and businesses
- Minimize internationally-sourced material (*can avoid potential additional restrictions or federal permits*)



County Extension Offices



State-registered plant nurseries



Submit a Plant, Insect or Soil
Sample for Identification

When in doubt,
contact our
Permit Unit!

Where to
obtain project
materials,
additional
resources,
and support?

Invasive plants collected in local natural areas



Leaf & fruit —*Casuarina* spp.: Australian-pine



Photograph by Leslie J. Mehrhoff, courtesy of Bugwood.org



Melaleuca quinquenervia
Myrtaceae
© G. D. Carr



Fig. 2. *Ardisia crenata*, coral ardisia, red fruit. Photography credit: Michael Meisenburg, UF/IFAS Center for Aquatic and Invasive Plants.



Figure 7. Lateral view of major worker of the bigheaded ant, *Pheidole megacephala* (Fabricius). Specimen is from Reunion. Photograph by April Nobile, Antweb.org.

Plant pathogen collected from locally infected citrus



SCIENTIFIC NAME:

Xanthomonas axonopodis pv. *citri*

Citrus canker, fruit symptoms on sweet orange -
Photo by Jeffrey W. Lotz; Florida Department of
Agriculture and Consumer Services

Endemic insects collected in local area



Figure 4. Adult yellow fever mosquito, *Aedes aegypti* (Linnaeus), showing the white "lyre" shape on the dorsal side of the thorax. Photograph by Paul Howell and Frank Hadley Collins, Center for Disease Control Public Health Image Library.

Example
organisms
approved for
science fair
projects via
FDACS-08208
permits

FDACS
"Planet Ag"
Agricultural Topics for
Science Fair Projects



Contacting the Permit Unit

General State Permit-Related inquiries
may be directed via phone to the
DPI Helpline: **352-395-4600**
or email: DPI-Permits@FDACS.gov

Other Frequently Used Emails

- DPIHelpline@FDACS.gov
- DPISPB@FDACS.gov
- DPIHemp@FDACS.gov
- Pest.Permits@USDA.gov

Plant & Pest Permits

This page provides a list of plant and pest permits available from the Florida Department of Agriculture and Consumer Services' Division of Plant Industry. If you aren't able to find the information you need, please call our helpline at 1-888-397-1517.



Aquatic Plant Permit FAQ

Frequently asked questions about aquatic plant permits



Arthropod, Plant and Plant Pest Permits

Importing or moving exotic organisms into Florida from any other state or country, or moving such exotic organisms within the state for an...



Native Plant Harvesting Permit

Some native Florida plants are protected and require a permit to harvest or collect.



Non-Native Species Planting Permits

Learn how to obtain a Non-Native Species Planting Permit.



Noxious Weed Permit

Collecting or moving noxious weeds within Florida or importing them for research from any other state or country requires a permit.



Citrus Health Response Program (CHRP)



Abandoned Grove Initiative

Abandoned citrus groves can harbor pests and diseases; removing them helps protect Florida's citrus crop.



Ag-Apiary Mapping Service

The Florida Apiary/Citrus Industry Link is a public mapping service to promote communications between the apiary and citrus industries.



CHRP Resources for Industry

The Citrus Health Response Program offers a variety of resources to industry to provide guidance and protect citrus.



Citrus Budwood Program

This program assists in the production of citrus nursery stock that is free of viruses and other graft-transmissible diseases.



Citrus Germplasm Introduction Program

This program provides the Florida citrus industry with new citrus germplasm that is free of any known graft-transmissible citrus pathogens.



Citrus Pests and Diseases

Learn about the different pests and diseases that impact Florida's citrus.



Citrus Quarantine and Disease Detection Maps

Find information about citrus quarantines in Florida and the various diseases that impact Florida citrus.



Growing Citrus in Approved Structures

Citrus greening host plants must be produced in an approved structure designed to exclude the Asian citrus psyllid.



Key to Whitefly of Citrus in Florida

This page contains the field key to aid in identifying species of whiteflies that occur on Florida citrus.

Program Resources

- Citrus Health Management Areas (CHMAs)
- CHRP Partner Agencies:
- Florida Department of Citrus
- National Ag Statistics Service — Citrus Industry
- National Citrus Health Response Program

Contact Us

Callie Walker
Chief of Pest Eradication and Control
(863) 298-3000
Callie.Walker@FDACS.gov



Citrus Regulations

Florida is under state and federal regulations regarding the import, export and propagation of citrus. Please see the rules and statutes below for more information.

- State:
- 38-62, Florida Administrative Code: Citrus Nursery Stock Certification Program
 - 38-63, Florida Administrative Code: Citrus Health Response Program
- Federal:
- Citrus Nursery Stock Rule information [PDF]



Thank you!
Q & A