



**Update
on
USDA APHIS VS
Activities**



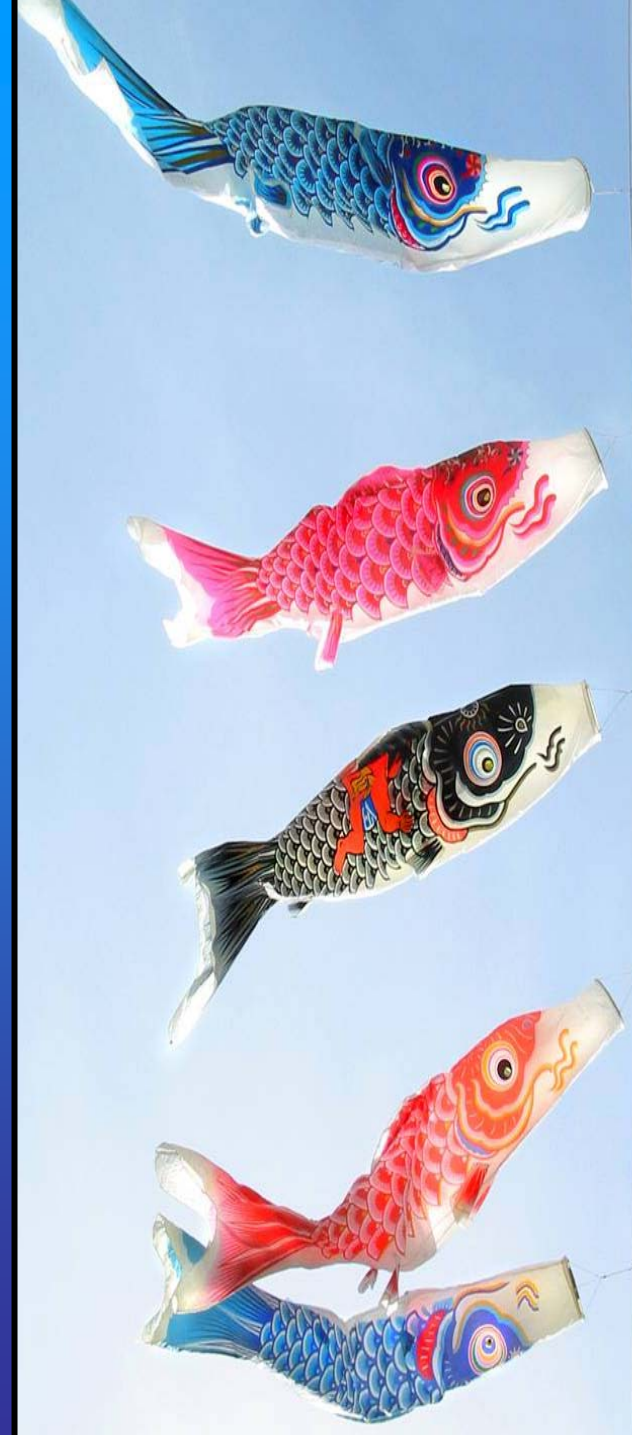
Kathleen H. Hartman, D.V.M., Ph.D.

USDA APHIS, VS

27th AKCA Seminar 2008
Jacksonville, FL

Overview

- USDA APHIS Veterinary Services
- Selected diseases of importance for koi
 - Spring Viremia of Carp (SVC)
 - Koi Herpesvirus (KHV) disease
- Other APHIS activities



USDA APHIS, VS

- Responsible for cultured aquatic animal health in the U.S.
 - Designated Co-Competent Authority
 - NOAA and USFWS
 - Trade issues
 - Export health certificates
 - Surveillance, control and eradication programs
 - Diagnostic assay approval and veterinary biologics
 - Accreditation program for vets
 - Development and implementation of National Aquatic Animal Health Plan (NAAHP)



Animal Health Competent Authority

- Competent authority for animal health issues in the U.S.
 - Reports to the World Organization of Animal Health (OIE, www.oie.org) concerning the presence or absence of notifiable diseases
 - Notifiable diseases includes OIE listed pathogens/disease and possibly others
- Accredited veterinarian workforce
- Designated 'Aquaculture Liaison' at Area Offices
- http://www.aphis.usda.gov/animal_health/animal_dis_spec/aquaculture/

Trade Issues

- APHIS negotiates with foreign countries to ensure that zoosanitary regulations for aquatic animals and animal products are based on valid science and transparent risk assessments.
- APHIS certifies the health status of aquatic animals or their products intended for export.
- APHIS approves diagnostic assays conducted at laboratories for the detection of specific aquatic animal pathogens such that APHIS may endorse export health certificates.
 - Refer to for list of labs and tests:
http://www.aphis.usda.gov/animal_health/lab_info_services/downloads/ApprovedLabs_Aquaculture.pdf
 - As of March 2008



APHIS Aquaculture Facility Registration

- Intended for those wanting to ship fish (and/or eggs or gametes) to countries belonging to the EU
- Must have a valid veterinary-patient-client relationship with an APHIS accredited vet
- Records must be available for inspection by APHIS as necessary
- Annual renewal

Occurrences of OIE Notifiable Finfish Diseases in the U.S.

- Infectious hematopoietic necrosis (IHN)
 - Western U.S.
- Spring viremia of carp (SVC)
 - Cultured and wild populations of susceptible species in North America
- Viral hemorrhagic septicemia (VHS)
 - Wild populations of susceptible species in North America (Great Lake states)
- Infectious salmon anemia (ISA)
 - NE U.S.
- Epizootic ulcerative syndrome (EUS)
 - U.S.
- Koi herpesvirus (KHV) disease
 - U.S.



SVC positive koi

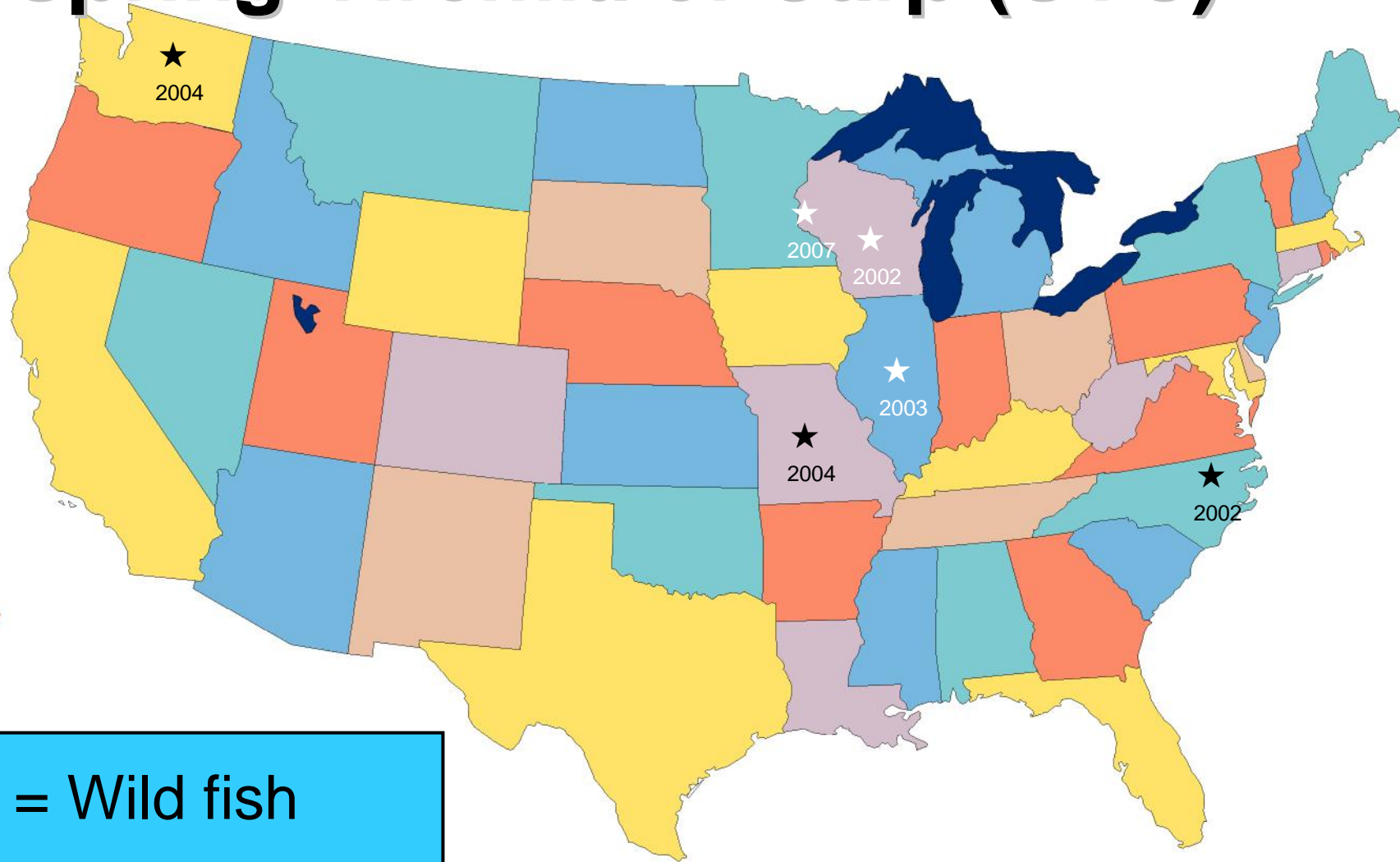


KHV positive koi

Spring Viremia of Carp (SVC)

- Viral disease (Rhabdovirus)
- Hosts (natural infections)
 - koi/common carp, grass carp, bighead carp, silver carp, Crucian carp, goldfish
- Geographic Range:
 - Europe, Middle East, Russia, South America, China and North America
- Carrier states possible

Spring Viremia of Carp (SVC)



★ = Wild fish
★ = Cultured fish

27th AKCA Seminar 2008
Jacksonville, FL

APHIS and SVC

- Outbreak responses
 - Report and eradication
- Surveillance program (2003 – 2006)
 - APHIS and USFWS
 - 30 participating states
 - All tests from cultured fish were negative
 - Considered an exotic disease to U.S. cultured susceptible species
- Import requirement
 - Import permit and health certificate
 - http://tal.ifas.ufl.edu/import_export.htm

Koi Herpesvirus (KHV)

- Viral disease (Herpes virus)
- Hosts
 - Koi/common carp
 - Other species may carry the virus
 - Goldfish
- Geographic range
 - Worldwide (not Australia)
- Carrier states possible



APHIS and KHV

- KHV is an OIE listed notifiable disease (as of January 2007)
 - http://www.oie.int/eng/normes/fmanual/A_00034.htm
 - Considered endemic in susceptible species populations in the U.S.
- USDA will report to OIE on a semi-annual basis that KHV is “known to occur” in the U.S.
- No federal funding

KHV Prevalence in the U.S.

- USDA accredited veterinarian and diagnostic laboratory must report positive cases
- Inform Federal Area Veterinarian-in-Charge (AVIC) and/or State Veterinarian
 - State of origin of infected fish
 - Reporting month
 - Total number of fish submitted for KHV testing
 - # of fish testing positive
 - # of fish testing negative
 - Assays used for the detection of KHV
 - ***Client information remains confidential***

Most Important...

- USDA has no mandatory action for KHV
- That is,
 - Action following + diagnosis is at the discretion of the *owner*
 - No state quarantine or mandatory depopulation
 - No mandatory KHV specific health requirements for imports of koi
 - No interstate movement restrictions

What's the Difference?

	SVC	KHV
OIE notifiable	Yes	
Carrier states possible	Yes	
Consistently present in cultured susceptible species in the U.S.	No	Yes
Targeted surveillance conducted	Yes	No
APHIS response to positive finding	Eradication	None
Import requirements	Yes	No

NAAHP

- Collaborative effort
 - APHIS
 - Farm-raised aquatic animals
 - NOAA – Fisheries
 - Marine wildlife or feral aquatics animals in captivity or captured from wild
 - USFWS
 - Freshwater wildlife or feral aquatic animals
- Key elements of plan
 - Professional roles, diseases of concern, surveillance, lab methods, health cert., biosecurity etc...
- http://www.aphis.usda.gov/animal_health/animal_dis_spec/aquaculture/naah_plan.shtml

NAAHP Objectives

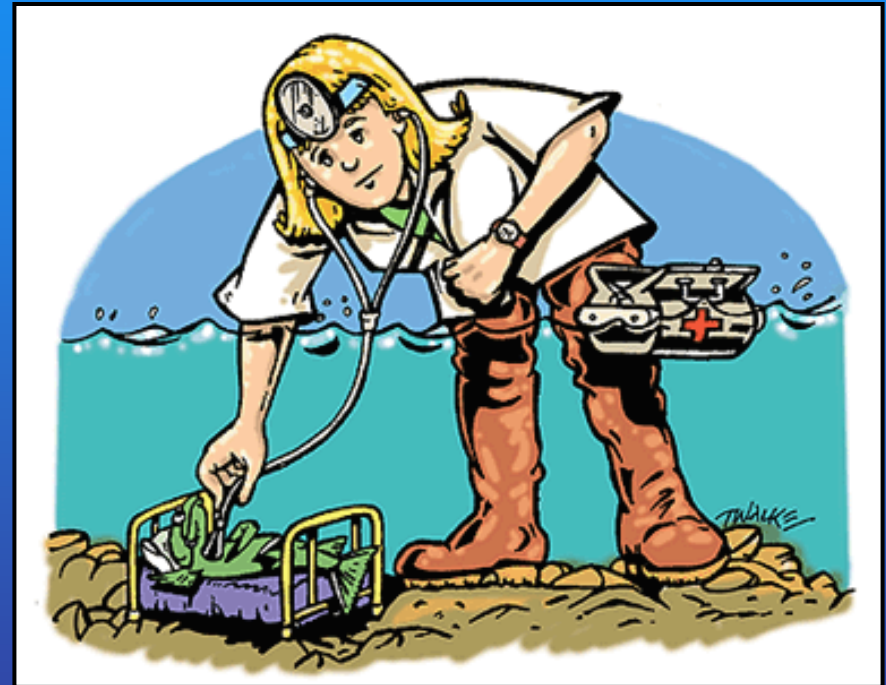
- Improve health and productivity of cultured aquatic animals
- Facilitate interstate and international commerce
- Ensure availability of diagnostic, inspection, and certification services
- Protect cultured and wild aquatic animals from foreign diseases
- Define the roles and responsibilities of private industry and government in health management

NVAP Aquatic Certification

- **Objective:**
 - To improve and expand regulatory veterinary support and services to U.S. aquaculture industries.
- **How?**
 - Through the development of a national certification program specific for aquatics and offered on-line to APHIS accredited veterinarians.

Web Training Modules

- **Module 1:** Aquatic Animal Health Regulations and Health Certificates
- **Module 2:** Aquatic Animal Certification and Disease Detection
- **Module 3:** Disease Prevention and Biosecurity in Aquaculture



Thank You!



27th AKCA Seminar 2008
Jacksonville, FL

My Contact Info

- Kathleen Hughes Hartman, D.V.M., Ph.D.
Aquaculture Epidemiologist
- USDA, APHIS-VS
- UF, Tropical Aquaculture Laboratory
(<http://tal.ifas.ufl.edu>)
- 1408 24th Street, S.E.
Ruskin, FL 33570-5434
- Phone: (813) 671-5230 x 119
- Cell: (813) 477-7019
- Fax: (813) 671-5234
- Email: kathleen.h.hartman@aphis.usda.gov

