

## Summary of Selected Disease Events April – June 2006

### I. OIE Listed Diseases

#### Highly pathogenic (H5N1) avian influenza

Between April and June 2006, highly pathogenic avian influenza (HPAI), subtype H5N1, continued spreading among birds in many countries, with widespread outbreaks reported in Hungary, Indonesia, Myanmar (formerly Burma), Nigeria, and Romania. Nevertheless, some European countries began easing bans on keeping domestic poultry outdoors. This decision was in response to the lack of apparent cases of avian influenza in wild birds passing northward through Europe on their spring migration. But experts warned the countries not to let their guard down against H5N1 virus, even though the spring migration was waning. Prevalence of avian influenza viruses fluctuates seasonally in wild birds and is normally much lower during spring.

**China:** China reported two outbreaks of H5N1 virus in approximately 400 migratory waterfowl (bar-headed geese and ruddy shelducks) during April and May. The agriculture ministry reported that the separate outbreaks were linked by a migration route that also connected two other recent outbreaks in wild birds in the region. Officials said the area is thinly populated and has no poultry farms.

**Denmark:** In May, Denmark reported its first outbreak of H5N1 virus in domestic poultry on a petting farm in Fyn. Denmark had previously reported several dozen wild birds infected with H5N1 virus, but had found no infections in domestic birds. According to news reports, the farm owner contacted authorities when several

of his chickens died suddenly. The government set up protection and observation zones around the affected property. The disease did not spread to other farms.

**Hungary:** In June, Hungary reported its first outbreak of HPAI H5N1 in domestic poultry. The H5N1 virus had killed more than 60 wild birds in Hungary since it was first confirmed during February 2006 in swans near the current outbreak. The government had lifted all safety zones in late April as there had been no cases for a month. In the report to the OIE, the outbreak took place on a farm in Bacs-Kiskun county with more than 3,100 geese. Approximately half the birds were sick or dead and the survivors were euthanized. Afterward the farm was cleaned and disinfected.

In late June, Hungary reported new outbreaks of H5N1 virus on six farms in Bacs-Kiskun county, affecting more than 60,000 birds. The agricultural ministry ordered the slaughter of more than 300,000 poultry to prevent the spread of the disease. Neighboring Romania reported a series of bird flu outbreaks on farms across the country, leading to the culling of hundreds of thousands of poultry (see below).

**Indonesia:** A June meeting of health officials in Jakarta concluded that H5N1 virus is widespread and well established in Indonesia and that large numbers of animal infections are going undetected. HPAI is believed to have spread to poultry in the vast majority of the country's provinces since it was first reported in 2004. Indonesia has conducted few mass culls as recommended by the United Nations.

**Myanmar:** H5N1 virus was first reported in Myanmar in March 2006. Within four weeks more than 100 outbreaks had occurred, mainly in the districts of Mandalay in central Myanmar and in Sagaing in the northern part of the country. To control the disease, Myanmar authorities euthanized more than 600,000

poultry from 545 farms. They also implemented movement controls, banned live poultry markets, and conducted avian influenza surveillance. Depopulated farms will be allowed to restock after officials declare the country free of H5N1 virus for two months.

**Nigeria:** In late June, H5N1 virus was reported in remote Taraba state in eastern Nigeria. The virus has now been detected in 14 of Nigeria's 36 states and in Abuja Federal Capital Territory. Nigeria was the first African country to report the emergence of H5N1 virus (in early February 2006). Despite efforts to contain the virus, it spread rapidly among poultry flocks across the country in the first few weeks after it was discovered. Since then the progression of H5N1 outbreaks has slowed. A recent article in *Nature* (2006 July) described genetic studies suggesting the H5N1 virus was introduced into Nigeria on at least three separate occasions, possibly by migratory birds or through trade.

**Romania:** In May, Romania quarantined several thousand people in the capital, Bucharest, amid new outbreaks of H5N1 virus in commercial and backyard poultry. After officially declaring HPAI eradicated in April, Romania discovered new outbreaks in three commercial chicken farms in Brasov county in the central part of the country. These latest outbreaks were the first confirmed cases of HPAI in commercial poultry in Romania, with previous cases restricted to family farms. A total of 53 outbreaks had occurred in backyard farms since the H5N1 virus was first detected on the Danube Delta in October 2005.

In the latest outbreaks, H5N1 virus spread from a commercial chicken farm, 170 km (106 miles) north of Bucharest, after it sold live chickens to private citizens without veterinary certificates. By June, more than 80 outbreaks had been reported in multiple counties. In addition to the quarantine in Bucharest, authorities imposed movement controls, culling, and disinfection of affected premises. No human cases of H5N1 virus have been reported in Romania.

**Russia:** In May, Russian officials reported finding new cases of H5N1 virus in poultry near Omsk in Siberia. HPAI first appeared in

Siberia during July 2005 and subsequently spread to several other parts of Russia late last year and into 2006. The Russian government has culled millions of poultry and vaccinated millions more in an attempt to halt the spread of the disease.

**Sudan:** Sudan reported its first cases of H5N1 virus in poultry flocks in March and April (Gezira and Khartoum states). As of May 30th, more than 1,900,000 birds had died or been culled in Sudan.

*Sources: OIE disease information reports; ProMED; CIDRAP News*

### **Avian influenza surveillance in wild birds (U.S. and Canada)**

In May, U.S. scientists began testing migratory birds in Alaska for H5N1 virus. This action marked the start of a proactive effort to detect any H5N1 incursion into the western hemisphere by testing 75,000 to 100,000 wild birds this year. Canada announced it will coordinate with the U.S. surveillance program by focusing on avian influenza testing in the north Atlantic region. Birds nesting in the north Atlantic could interact with birds from Europe that were recently infected with the H5N1 virus. Canada will include Iceland in its surveillance program, because Iceland hosts migratory birds from both North America and Europe.

*Sources: CIDRAP News (May 18 and 23, 2006)*

### **H5N1 in humans (significant events)**

**Azerbaijan:** Health experts investigating two clusters of human cases of H5N1 avian influenza in Azerbaijan concluded that one cluster was probably the first time humans acquired the disease from wild birds. According to a report published in *Eurosurveillance Monthly*, "close contact with and de-feathering of infected wild swans were the most plausible exposures to influenza A/H5N1 virus in the Daikyand cluster," which included seven confirmed cases and four deaths. The two clusters of H5N1 cases in Azerbaijan occurred in March and were preceded by outbreaks in wild and domestic birds in February. While the report concluded

that the Daikyand victims probably caught the virus by handling wild swans, it conceded that limited human-to-human transmission couldn't be ruled out.

Source: *Eurosurveillance Monthly* (May 2006); *CIDRAP News* (May 31, 2006)

**Indonesia:** According to the World Health Organization (WHO), a family cluster of seven confirmed cases of H5N1 avian influenza in Indonesia involved "close and prolonged exposure" to another infected person, suggesting person-to-person spread. The family in North Sumatra had seven confirmed cases of H5N1 infection during May 2006, six of them fatal. The cluster is believed to have started in a 37-year-old woman who died and was buried without being tested for the disease. Officials think she caught the virus from poultry and passed it on to other family members. One of those family members, a 10 year old boy, is thought to have infected his father. "This is the first time we have seen cases that have gone beyond one generation of human-to-human spread" said a WHO official. Virus transmission from the boy to his father was suggested by results of genetic studies. Human-to-human transmission of H5N1 virus has been suspected in a number of previous family case clusters, but has never before been confirmed by laboratory tests.

Sources: *CIDRAP News*; *ProMED*, *Nature* (vol 442, July 13, 2006)

#### Additional resources:

USDA APHIS VS CEI Impact worksheets  
[http://www.aphis.usda.gov/vs/ceah/cei/taf/current\\_iw.htm](http://www.aphis.usda.gov/vs/ceah/cei/taf/current_iw.htm)

USGS National Wildlife Health Center avian influenza web page  
[http://www.nwhc.usgs.gov/disease\\_information/avian\\_influenza/index.jsp](http://www.nwhc.usgs.gov/disease_information/avian_influenza/index.jsp)

Biweekly maps of international HPAI outbreaks  
<http://www.fao.org/ag/againfo/programmes/en/empres/maps.html>

FAO/OIE International scientific conference on avian influenza and wild birds, FAO/OIE conference web page  
[http://www.fao.org/ag/againfo/subjects/en/health/diseases/cards/conference/index\\_en.html](http://www.fao.org/ag/againfo/subjects/en/health/diseases/cards/conference/index_en.html)

OIE avian influenza web page  
[http://www.oie.int/download/AVIAN%20INFLUENZA/A\\_AI-Asia.htm](http://www.oie.int/download/AVIAN%20INFLUENZA/A_AI-Asia.htm)

WHO avian influenza web page  
[http://www.who.int/csr/disease/avian\\_influenza/en/index.html](http://www.who.int/csr/disease/avian_influenza/en/index.html)

## **African horse sickness (South Africa)**

During the first six months of 2006, South Africa experienced a large increase in the number of reported cases and deaths from African horse sickness (AHS). Nationwide, approximately 1,400 AHS cases and more than 700 deaths were reported. In Northwest province, more than 160 AHS deaths occurred. In Western Cape province, 42 horses died of AHS near George and six horses died in the Worcester district (see map). Before 2004, Western Cape province had been declared AHS free, and a two-year ban on EU horse imports from the province was due to expire in March 2006. KwaZulu-Natal province, an endemic area for AHS, had numerous outbreaks and more than 300 cases of AHS, including more than 100 horse deaths. Most of the AHS-related mortalities in South Africa were among non-vaccinated horses.



African horse sickness is endemic in the central tropical regions of Africa and in the temperate northern regions of South Africa. The disease can be transported with infected equines to other parts of the country. AHS is not transmitted directly, but is spread by biting arthropods, generally *Culicoides* midges which thrive in wet, low-lying areas. Outbreaks of AHS in South Africa typically begin in January or February, reach a peak in March and April,

and taper off during May. The disease is not evident in winter months although arthropod vectors and host species may harbor the virus. The only means of limiting the spread of AHS are through quarantine, stabling and vaccination of horses.

The natural hosts of AHS are horses, mules, donkeys and zebras, although other wild and domestic species are sometimes affected. AHS is fatal in a high percentage of horses, less so in mules, and rarely in donkeys. Zebras may serve as asymptomatic carriers of AHS.

*Sources: OIE disease information reports; ProMED; APHIS International Services, personal communications*

### **Equine infectious anemia (Ireland)**

In June, Ireland reported its first outbreaks of equine infectious anemia (EIA) on two breeding farms in Meath county. The affected animals were a mare (dead) and a foal (alive) near the town of Kilcock and a foal (dead) in Dunshaughlin. The latter animal died on May 22<sup>nd</sup>. The diagnosis of EIA was made using the agar gel immunodiffusion test and postmortem examination, and was reported by the Department of Agriculture, Food and Rural Development in Dublin. EIA was first detected in the United Kingdom in 1976 but had never before been found in Ireland. The suspected source of the outbreaks was infected horse serum used to treat other equine diseases. Disease control measures included modified stamping out and screening, and an epidemiological investigation was conducted. (As of late July, a government update said 12 cases of EIA had been confirmed in Ireland).

Given the high level of movement of horses throughout Ireland, the Agriculture Department has advised horse owners and managers to have their horses tested for EIA and to keep their horses away from wetlands and wooded areas likely to have large concentrations of horseflies. Veterinary practitioners are being reminded to maintain strict aseptic techniques in the treatment of sick horses.

EIA (also known as swamp fever) is a chronic or acute fatal retroviral infection of all equines

that can be very difficult to control. Once infected with EIA virus, a horse's blood remains infectious for the remainder of its life. This means that the horse is a viremic carrier that can potentially transmit the infection to other horses. The virus is usually transmitted by biting insects or through the use of blood-contaminated instruments or needles. There is no vaccine to prevent EIA.

*Source: ProMED; OIE disease information reports; OIE manual of diagnostic tests for terrestrial animals*

### **Classical swine fever (Guatemala)**

In early May, the Guatemala Ministry of Agriculture, Livestock and Food Supply (MAGA) reported an outbreak of classical swine fever (CSF) on a farm in Lo de Coy village, Mixto administrative district. The outbreak started April 20<sup>th</sup> in a herd of 49 pigs, including 33 sucklings, 4 rearing pigs, 10 breeders and 2 boars. Thirty animals died and the rest were depopulated.

Diagnosis of CSF was made by PCR at the MAGA Reference Central Laboratory in Managua, Nicaragua. The source of the outbreak was unknown. Disease control measures included stamping out, quarantine, premises disinfection, and vaccination of 52 animals in areas around the outbreak using attenuated virus strain PAV-250 vaccine. Officials verified the health status of the vaccinated pigs a week after vaccination and reported no problems.

CSF is a highly contagious viral disease of domestic and wild pigs, including boars and peccaries. Most Central American countries have reported outbreaks of CSF over the past 10 years. Costa Rica and Guatemala had outbreaks in 2003, El Salvador in 2001 and Honduras has reported CSF continuously since 1996. Belize last had an outbreak in 1988.

*Sources: OIE disease information reports; ProMED*

## **Foot and mouth disease (FMD, multiple countries)**

**Botswana:** In April 2006, Botswana notified the OIE of an outbreak of FMD, serotype SAT-2, in FMD zone 7 of the central region. The epicenter of the infection was Sekgopye village, and only cattle were showing clinical signs. The estimated susceptible population was approximately 90,000-100,000 cattle, approximately ¼ within the infected area and ¾ within the surveillance zone. FMD was last reported in Botswana in August 2005.

Following the FMD outbreak, animal health authorities blockaded the entire zone 7 and enforced movement restrictions on livestock. Vaccination of all zone 7 cattle, using trivalent SAT-1, SAT-2, and SAT-3 vaccine, was completed in May, and officials administered booster vaccines in June.

It is suspected that the FMD outbreak in Botswana was linked to illegal cattle movement from Zimbabwe, which has been struggling to control FMD. SAT-2 has been involved in most of the FMD outbreaks in Zimbabwe. Investigations are underway to confirm the source of the outbreak in Botswana.

On June 15, 2006, Botswana reported an outbreak of FMD SAT-1 in a village in Kasane district (FMD zone 1). The affected farm was in a FMD vaccinated area bordered by the Caprivi strip (Namibia) on the north and Chobe National Park on the east, south and west. The infected area had more than 500 goats.

Zone 1 is considered a high risk area for FMD because of the presence of infected cape buffalo, which move out of Chobe National Park onto the Cuando river that forms the boundary with Namibia. Cattle are routinely vaccinated three times per year with inactivated trivalent SAT vaccine. In addition, there is a permanent ban on movement of ruminants and their products from zone 1 to the rest of the country and outside. This outbreak therefore poses no significant risk to national, regional and international trade in cloven hooved animals and their products.

**Democratic Republic of Congo:** In May, the Democratic Republic of Congo (DRC) reported outbreaks of FMD on three farms in Nord-Kivu province. According to APHIS field personnel, the outbreaks began in Uvira in South Kivu province and then spread north into Nord-Kivu province. The FMD outbreaks affected more than 1,200 of 33,000 cattle, mainly milk cows of exotic breeds. Eight cattle deaths were reported. Control measures included stamping out, movement controls, and minimizing contact with wildlife reservoirs. Samples were sent to Onderstepoort, South Africa, for typing.

**Ecuador:** Ecuador reported a reoccurrence of FMD, serotype O, in May. Outbreaks in cattle began May 15<sup>th</sup> at two locations 3 km apart in Pichincha province. The first outbreak occurred in young bulls of unknown origin purchased at a village market. The second outbreak occurred at a farm connected by a trail to the site of the first outbreak. A third outbreak in Pichincha, involving calves and a young bull, also occurred in May, but was not reported to OIE until July. In total there were 585 susceptible animals and 20 clinically affected in the three outbreaks. Disease control measures were implemented including movement controls, premises disinfection, and vaccination of 800 cattle in the vicinity of the outbreaks. FMD was last reported in Ecuador in October 2005.

**Kyrgyzstan:** In May 2006, an outbreak of FMD in domestic cattle was reported in the Chuya region in the north of Kyrgyzstan. In June, following an outbreak of FMD in the southern Osh region, the Kyrgyz government established a 30-km buffer zone and placed a quarantine on cattle movements. According to a veterinary official in Osh, nearly 400 cases of FMD had been detected in domestic cattle in Kyrgyzstan since February 2006. The disease struck the main cattle-breeding districts in Osh, as well as neighboring Jalal-Abad province. This outbreak followed similar cases in Andijan province in eastern Uzbekistan in 2005.

Specialists from the state veterinary service postulated that cattle moved from neighboring Uzbekistan to summer pastures in Kyrgyzstan

could be the source of the infection. According to authorities, more than 30,000 cattle in Osh originated in Uzbekistan, some of which had been moved illegally. However, they admitted that the outbreak could have started within Kyrgyzstan, because the cattle had not yet been moved from Uzbekistan when the first FMD outbreaks occurred in February.

**Mongolia:** FMD is sporadically reported from Mongolia. No outbreaks were reported from 1974 to 2001, and only a few outbreaks have been reported since. In April 2006, Mongolian authorities quarantined a suburb on the outskirts of the capital, Ulaanbaatar, after health officials confirmed that a sick cow died of FMD, serotype O. The cow was one of a herd of 25 cattle belonging to the Agricultural University. All herd mates were immediately depopulated and the area was cleaned and disinfected. Some 430 livestock in the vicinity of the outbreak were placed under quarantine. The source of the FMD case is unknown.

**Rwanda:** FMD is endemic in Rwanda but reporting has been sporadic and little is known of the frequency and location of outbreaks. According to Kigali news reports, ongoing outbreaks of FMD have occurred in Rwanda's Eastern province for the past two years. The government had declared FMD eradicated, but in May, a new outbreak occurred in the province, forcing the government to re-impose a quarantine in the region. More than 200 cattle were affected in Nyagatare district in the northeast corner of the country. Government veterinarians suspect the recent outbreaks were caused by movement of infected livestock from Tanzania and/or Uganda.

**Uganda:** Although FMD is endemic in Uganda, only a few outbreaks have been reported in the past 18 months. In January 2006, FMD outbreaks were recorded in Manafwa district in southeast Uganda. In early April, FMD was identified in Mpigi district in southern Uganda, near Lake Victoria. Control measures were imposed including restrictions on movement of livestock and livestock products. Despite these efforts, outbreaks of FMD were reported later in April in two neighboring districts south of Mpigi. FMD has now been identified in several

localities in Rakai district and in Masaka district. A veterinary official in Rakai district indicated that pastoralists from Tanzania cross the border into Uganda with infected cattle in search of pasture and water. He said that approximately 100 cows from Tanzania were impounded after they were found to be infected with FMD. A veterinary officer for Masaka district said that many of the cases in his district originated in cattle moved from Mpigi.

**Vietnam:** FMD is considered endemic in Vietnam. However, in April and May 2006, the country experienced a sharp increase in the number of FMD cases. By the end of May, agricultural officials reported the disease had spread to 447 communes in 33 provinces, affecting nearly 15,500 cattle and buffaloes, and about 18,300 pigs. Nearly 12,000 pigs and roughly 450 buffaloes and cattle had either died or been culled due to the outbreaks. FMD serotype O was reported in 32 provinces and serotype Asia-1 in one province. Vietnam has responded by increasing control over cattle transport and trade, and intensifying FMD surveillance and vaccination of healthy animals in the affected provinces and border regions.

**Other Countries:** Brazil, Turkey, and China reported continuing outbreaks of FMD (some in new locations) which had begun in 2005 or 2006. FMD trade embargos are still in place in Brazil (Parana and Mato Grosso do Sul states) until testing of all sentinel animals has been completed. Argentina issued a final report to the OIE stating that the FMD outbreak in Corrientes province that started in February 2006 had been controlled and eradicated.

*Sources: OIE disease information reports; ProMED; APHIS International Services, personal communications*

### **Lumpy skin disease (Israel)**

In June, Israeli authorities reported lumpy skin disease (LSD) at a farm at En Zurim in Hadarom province. Israel last reported LSD to the OIE in September 1989. The June 2006 outbreak in Israel affected 30 dairy cows and began on June 20<sup>th</sup>. The affected farm had more than 600 cattle (milking cows, fattening bulls, and female calves) and was a closed unit

with no recently introduced animals. Disease mitigation measures included arthropod control, modified stamping out, quarantine, movement restrictions, and ring vaccination in a 3 kilometer radius zone around the outbreak.

LSD is a viral disease of cattle that is transmitted mainly by insects such as mosquitoes and biting flies. Before the 1980's, LSD occurred only in sub-Saharan Africa, but it has since been reported in several Middle Eastern countries.

The Center for Emerging Issues, CEAH, prepared an impact worksheet examining the status of the LSD outbreak in Israel and relevant statistics for livestock production and trade with the U.S. The impact worksheet is posted on the CEI website at: [http://www.aphis.usda.gov/vs/ceah/cei/taf/current\\_iw.htm](http://www.aphis.usda.gov/vs/ceah/cei/taf/current_iw.htm)

### **Viral hemorrhagic septicemia (Great Lakes area, USA)**

Viral hemorrhagic septicemia (VHS) has recently emerged as an important disease of freshwater fish in the Great Lakes region of the U.S. and Canada. Historically, VHS has been considered the most serious viral disease of salmonids reared in freshwater environments in Europe, where it is known as Egtved virus. VHS also has been found in a variety of marine fish species in the North Pacific, North Atlantic, and seas around northern Europe and Japan. VHS is an OIE listed disease and therefore could have trade impacts beyond earnings losses within the U.S. aquaculture industry in the event of an outbreak in farm-raised fish.

The Center for Emerging Issues prepared an Emerging Disease Notice that describes the current status of viral hemorrhagic septicemia in the U.S., focusing on the 2005 and 2006 outbreaks in the Great Lakes area. This report also quantifies trade and production statistics for relevant fisheries products and aquaculture resources, and provides a qualitative assessment of potential risks and impacts of VHS in the event that it affects aquaculture fish species. The VHS Emerging Disease Notice is posted on the CEI website at:

[http://www.aphis.usda.gov/vs/ceah/cei/taf/emergingdisease/notice\\_files/notices.htm](http://www.aphis.usda.gov/vs/ceah/cei/taf/emergingdisease/notice_files/notices.htm)

## **II. Other Significant Disease Events**

### **Ganglioneuritis virus in abalone (Australia)**

In June 2006, ganglioneuritis virus was reported at four abalone farms in southwest Victoria and in wild abalone stocks off Port Fairy, Australia (see map). This disease, which causes paralysis and death of abalones, had never been reported in Australia. It has devastated the industry in parts of Asia. Divers were banned from a 10-kilometer section of Victoria's coastline as testing was conducted to determine the extent of the outbreak.

A fisheries official in Victoria stated that the government was attempting to prevent the ganglioneuritis virus from spreading by eliminating access to the affected reefs and seeking reports of possible outbreaks from industry and the public. The source of the outbreak is unknown, but there was speculation that the virus could have originated in the wild. Although there has been no trace of the disease on the nearby island state of Tasmania, the local abalone industry requested an official review of biosecurity at processing plants and farms. Tasmania's abalone industry is worth \$100 million annually.

*Source: ABC Newsonline*



## **West Nile virus in horses (Argentina)**

In April, Argentina reported its first outbreaks of West Nile virus (WNV) in San Antonio de Areco, 100 km northwest of Buenos Aires. The cases involved two horses on two different breeding farms of purebred racehorses with 294 and 331 animals respectively. The dead animals were an 8 year old and an 18 year old, both mares. The mortalities occurred in early February. A third case occurred in a polo horse in San Isidro, Buenos Aires, in late February. Diagnoses of WNV were made at the National Institute of Human Viral Diseases and were reported by the National Agrifood Health and Quality Service (SENASA), Secretariat for Agriculture, Livestock, Fisheries and Food, in Buenos Aires.

Argentina is a big exporter of sport horses, supplying more than 500 racehorses to other countries in 2005. As a result of the WNV outbreak, Argentina temporarily banned all horse exports in late April. Control measures included quarantine, screening, mosquito suppression, and possibly, vaccination.

Confirmation of the arrival of WNV in Argentina is a concern to the horse breeding and racing industries, based on the U.S. experience with WNV in 2002. In that year, WNV sickened thousands of horses, killing more than 30% and causing millions of dollars in losses to the horseracing industry in the U.S.

The range of West Nile virus in the western hemisphere has expanded rapidly since it was first discovered in New York City in 1999. There is some evidence that WNV has been in South America since 2004, when exposure to the virus was detected in sera from 12 of 130 healthy horses and donkeys in northern Colombia. WNV disease and mortality in U.S. horses have declined dramatically as the virus and hosts have co-adapted and effective vaccines and treatments have been developed.

*Sources: ProMED; OIE disease information reports*

## **Undiagnosed die-off of Asian carp (Illinois, USA)**

In June 2006, a fish kill affecting thousands of Asian carp occurred on a 110-mile stretch of the Illinois River near Peoria. Two species, the silver carp and bighead carp, were affected. These fish, which grow very large and compete with native fishes, escaped from aquaculture farms in the southern U.S. more than a decade ago. Along with two other species of Asian carp (common carp and grass carp), the bighead and silver carp are considered invasive species in the U.S. Originally imported into the U.S. from China to help keep fish-rearing ponds clean, they are filter feeders, consuming daily up to 40 percent of their body weight in microscopic plants and animals.

While it is still uncertain what caused the die-off of Asian carp, initial tests at the U.S. Fish and Wildlife Service Fish Health Center in Wisconsin have ruled out spring viremia of carp (SVC). SVC was initially suspected as a possible cause of the outbreak. According to the Illinois Department of Natural Resources, a bacterial outbreak initiated by some type of stress now appears more likely. Further testing of samples is planned.

*Sources: Associated Press; The State Journal-Register*

This summary report was prepared by the Center for Emerging Issues, within the Centers for Epidemiology and Animal Health, Veterinary Services, USDA. This and other reports are available on the internet at:  
[www.aphis.usda.gov/vs/ceah/cei/index.htm](http://www.aphis.usda.gov/vs/ceah/cei/index.htm).

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