

## **Poultry mycoplasma killing millions of wild birds**

Clarke Communication and Consulting

*Mycoplasma gallisepticum* , at one time, primarily caused chronic respiratory disease in chickens and turkeys. Ducks and geese became infected when held with infected chickens. In turkeys it is most associated with severe sinusitis. The condition occurs worldwide, though in some countries this infection is now rare in commercial poultry. In others it is actually increasing because more birds in extensive production systems are exposed to wild birds.

Scientists were puzzled when thousands of wild house finches started dying in the winter of 1994, from a mysterious eye infection. Researchers soon identified the cause as *Mycoplasma gallisepticum*. One of the first sick birds was diagnosed in Washington DC and before long affected birds were found from Florida to Quebec. The birds had red, swollen, crusty eyes that left them unable to see or forage for food until they eventually died from starvation and predation.

Since its discovery, the epidemic has spread as far west as California and is estimated to have killed hundreds of millions of birds. But scientists are still far from understanding how *Mycoplasma gallisepticum* acquired the ability to spread to house finches, which diverged from chickens and turkeys some 80-90 million years ago, or what turned it into such a sweeping killer.

In both poultry and house finches, the microbe has been evolving at frightening speed, they report. "It's evolving anywhere from 10 to 100 times faster than previous estimates for any other bacterium. Rather than acquire new genes to help outwit its new host, the mycoplasma strain has gradually lost more than 50 genes, particularly those that make up the microbe's immune system.