

## Chapter 3

### REPORTS OF *SALMONELLA* IN WILDLIFE

#### Wild Birds

There is no routine monitoring of *Salmonella* in wild birds. Therefore all isolates were from clinical cases, although *Salmonella* was not necessarily the primary cause of disease.

*Salmonella* Typhimurium DT40 was isolated from a Goldfinch (*Carduelis carduelis*) and a finch. There were five incidents of *Salmonella* Typhimurium DT56 variant and these occurred in a Goldfinch, a Collared Dove (*Streptopelia decaocto*) and Greenfinches (*Carduelis chloris*) from three different locations. *Salmonella* Typhimurium DT41 was isolated from a House Sparrow (*Passer domesticus*).

It is generally accepted that in Britain, passerine species (perching birds) particularly those using garden bird feeders and drinkers, have three host adapted *Salmonella* species, which are *Salmonella* Typhimurium DT40, DT56 and DT56 variant. Opportunities for spill-over of infection from these birds are frequent, for example when they are feeding in farms, stables, in animal feed mills, and also from pet cats eating sick infected birds. During 2007, *Salmonella* Typhimurium DT56 was isolated from a variety of domesticated species including alpaca (2), cat (3), dog (1), pig (1), sheep (1) and horse (9). *Salmonella* Typhimurium DT40 was also isolated from a horse.

*Salmonella* Typhimurium DT104 was isolated from a Mute Swan (*Cygnus olor*) which was found dead on a village pond in Sussex. The swan had died as a result of trauma but *Salmonella* Typhimurium DT104 was isolated from its liver. This was an unusual finding. *Salmonella* Typhimurium DT104 is one of the commonest *Salmonella* Typhimurium definitive types found in cattle, particularly in dairy cattle.

#### Wild Mammals

There is no routine monitoring of *Salmonella* in wild mammals. Therefore all isolates were from clinical cases, although *Salmonella* was not necessarily the primary cause of disease. There were five isolates directly from wild mammals this year.

*Salmonella* Hindmarsh was isolated from a debilitated grey seal (*Halichoerus grypus*) in a wildlife hospital. There were no isolates of this serotype in farmed animals for the last five recorded years.

*Salmonella* Ajiobo was an incidental isolate from the stomach contents of a young dog otter (*Lutra lutra*) that died suddenly in a rehabilitation centre. *S. Ajiobo* is a rare but increasing cause of salmonellosis in humans (CDR Weekly, 2006). It also has been previously isolated from badger (*Meles meles*) and fox (*Vulpes vulpes*) faeces (Eurosurveillance, 2006) and may be found in grain storage areas of some feed mills.

*Salmonella* Enteritidis Phage Type 11 was isolated from systemic sites of an emaciated juvenile hedgehog (*Erinaceus europaeus*) that died in a wildlife hospital. Follow-up sampling was carried out. Thirteen faecal samples were collected from hedgehogs but surprisingly there were no isolates of *S. Enteritidis*. However *Salmonella* Agona was isolated from a hedgehog in one enclosure. There were seven incidents of *S. Agona* reported in farmed livestock during 2007. One of these was in cattle, five in chickens and one in turkeys. In the other case *S. Enteritidis* Phage Type 11 was isolated from an abscess of a hedgehog with large abscesses throughout the lungs. This was from a wildlife rescue centre. There was a mixed bacterial growth indicating faecal contamination, so the significance of this isolate is uncertain. *S. Enteritidis* Phage Type 11 has previously been reported as common and widespread in hedgehogs in England (Keymer and others, 1991).

**Table 63: *Salmonella* in wild birds in 2007**

Species	<i>Salmonella</i> Incidents (Isolations)							
	STM DT 40		STM DT 41		STM DT 56		STM DT 104	
Collared Dove	-	( -)	-	( -)	1	( 1)	-	( -)
Finch (unspecified)	1	( 1)	-	( -)	-	( -)	-	( -)
House Sparrow	-	( -)	1	( 1)	-	( -)	-	( -)
Greenfinch	-	( -)	-	( -)	3	( 3)	-	( -)
Goldfinch	1	( 1)	-	( -)	1	( 1)	-	( -)
Mute Swan	-	( -)	-	( -)	-	( -)	1	( 1)
TOTAL	2	( 2)	1	( 1)	5	( 5)	1	( 1)

**Table 64: *Salmonella* in wild mammals in 2007**

Species	<i>Salmonella</i> Incidents (Isolations)							
	Agona		Ajiobo		Enteritidis PT 11		Hindmarsh	
Hedgehog	1	( 1)	-	( -)	2	( 2)	-	( -)
Otter	-	( -)	1	( 1)	-	( -)	-	( -)
Seal	-	( -)	-	( -)	-	( -)	1	( 1)
TOTAL	1	( 1)	1	( 1)	2	( 2)	1	( 1)