

Report from the Kennel Club/  
British Small Animal Veterinary Association  
Scientific Committee

Summary results of the  
Purebred Dog Health Survey  
for Border Collies

Warning: The results of this survey and particularly the breed-specific analyses should be interpreted with caution. The overall response rate was only 24% with breed-specific response rates from 4.5% to 64.7%.

## Border Collies

A total of 558 forms were sent out and 96 were returned, representing 376 live dogs. This breed had a 17.2 % response rate (96/558) and it represented 0.70% of all returns (96/13,741).

### **Mortality data**

A total of 106 deaths were reported and this represents 0.67 % of all deaths reported in the survey (106/15,881). The median age at death for Border Collies was 12 years and 3 months (min = 2 months, max = 17 years and 4 months) and this was higher than the overall median of 11 years and 3 months (Figure 1). Table 1 shows the causes of death for Border Collies. Age at death is presented for the most common causes of death (Figure 2).

Table 1. Causes of death by organ system/category for Border Collies.

Cause of death	N	%	Most common specific causes in descending order
1 Cancer	25	23.6	Type unspecified
2 Old age	19	17.9	Old age
3 Cerebral vascular	10	9.4	Stroke or cerebral vascular accident
4 Cardiac	7	6.6	Heart attack; heart failure; heart defect unspecified
5 Combinations	6	5.7	Chronic liver failure & kidney failure
6 Unknown	6	5.7	
7 Trauma	5	4.7	Road traffic accident; unspecified
8 Behaviour	4	3.8	Aggression; rage syndrome
9 Neurologic	4	3.8	Seizures; vestibular syndrome
10 Other	4	3.8	Uncodeable
11 Urologic	4	3.8	Chronic kidney failure chronic
12 Respiratory	3	2.8	
13 Musculoskeletal	2	1.9	Arthritis; hip dysplasia
14 Poisoning	2	1.9	
15 Endocrine	1	0.9	Diabetes mellitus
16 Gastrointestinal	1	0.9	Campylobacter
17 Infection	1	0.9	Viral infection
18 Perioperative	1	0.9	Perioperative or anaesthetic related
19 Reproductive	1	0.9	Unspecified
Total	106	100.0	

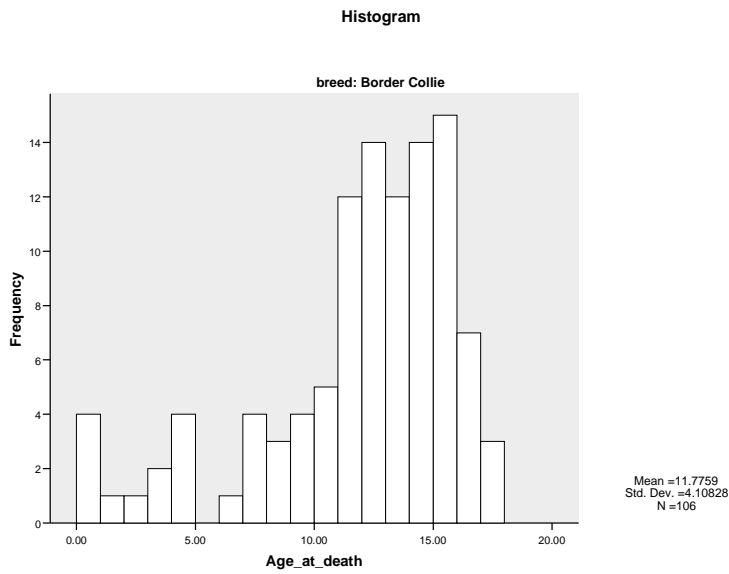


Figure 1. Histogram showing the frequency (as number of dogs) of age at death (in years) for the 106 Border Collie deaths with age at death reported.

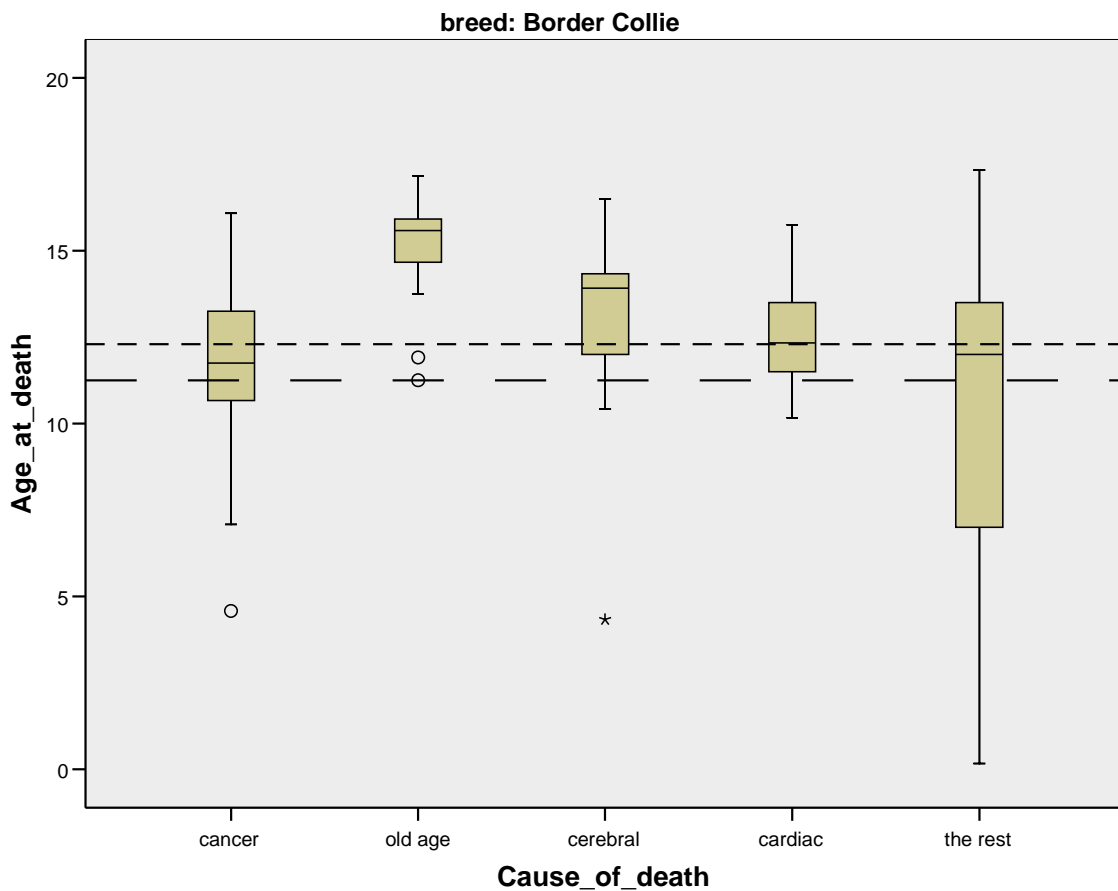


Figure 2. Box and whisker plot of age at death in years for the most common causes of death in Border Collies (N=106). The dashed line (---) is the overall median age at death for all dogs in the survey and the dotted line (----) is the overall median age of death for Border Collies. The solid line within each grey box represents the median age at death from the condition.

### Morbidity data

The median current age of the 375 live dogs with a reported age was 5 years (min=2 months, max=16 years and 7 months, Figure 3). Health information was reported for 376 live dogs of which 266 (71%) were healthy and 110 (29%) had at least one reported health condition, resulting in a total of 172 reported conditions with a median of 1 condition/dog (min=1, max=6).

The median current age of all healthy dogs with a reported age (N=266) was 3 years and 9 months (min=2 months, max=16 years and 3 months). The distribution of gender and neuter status is shown in Table 2.

The median current age of all dogs with one or more disease conditions and a reported age (N=110) was 7 years and 3 months (min=6 months, max=16 years and 7 months). The median age at diagnosis for all disease occurrences with a reported age at diagnosis (N=154) was 4 years (min= 2 months, max= 14 years and 7 months, Figure 4). Table 3 shows the disease conditions for Border Collies. Age at diagnosis is presented for the most common disease conditions (Figure 5).

Table 2. Distribution of gender and neuter status for 376 Border Collies with reported gender and neuter status.

Gender	Neuter status		Totals
	Intact	Neutered	
Female	147	88	235 (63%)
Male	109	32	141 (38%)
Totals	256 (68%)	120 (32%)	376 (100%)

Significantly more females were neutered (P=0.0030).

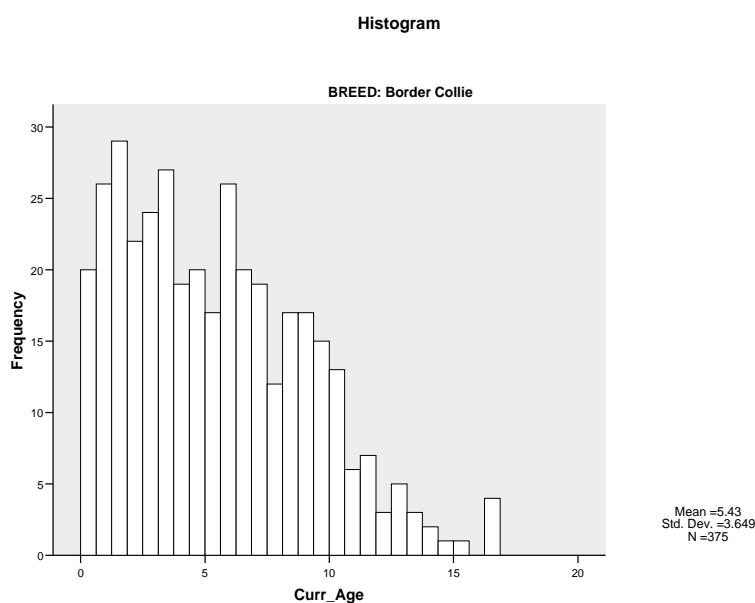


Figure 3. Histogram showing frequency of current age in years for the 375 live Border Collies with age reported.

## Histogram

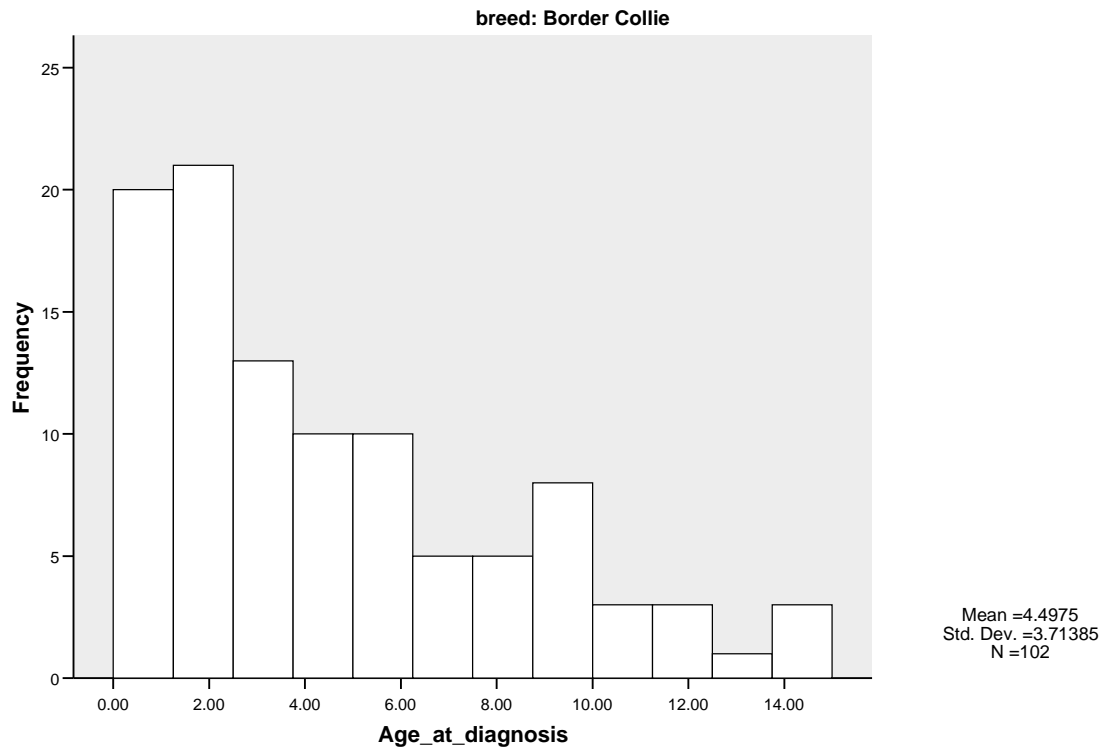


Figure 4. Histogram showing frequency of age at diagnosis for the 102 Border Collies with one or more disease conditions, using the youngest age at which a disease condition was first reported for those dogs with more than one disease condition or episode.

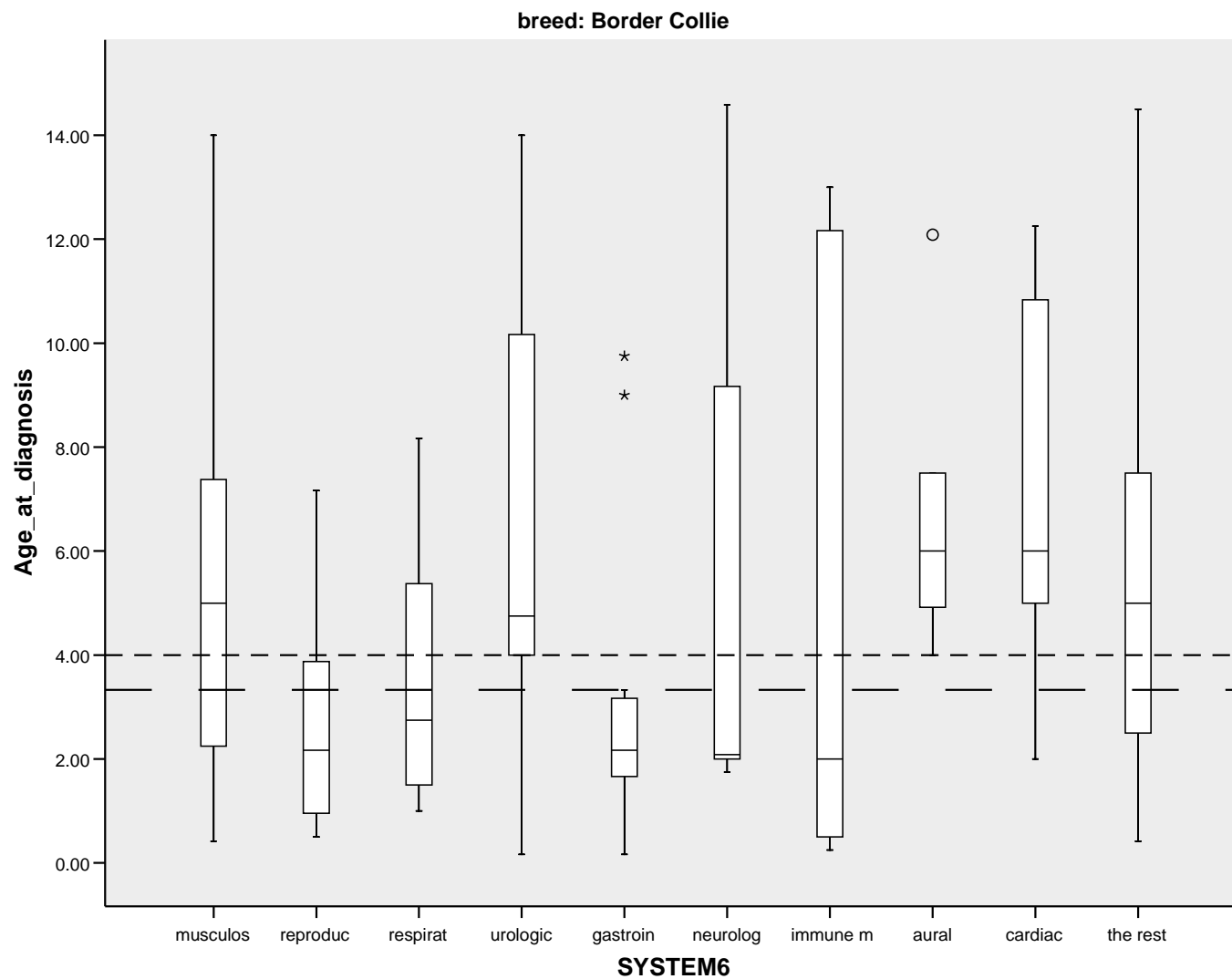


Figure 5. Box and whisker plot of age at diagnosis in years for the most common disease conditions in descending order for Border Collies (N=110 dogs with 154 conditions with age reported). The dashed line (---) is the overall median age at diagnosis for all dogs in the survey and the dotted line (----) is the overall median age at diagnosis for Border Collies. The solid line within each grey box represents the median age at diagnosis from the condition.

Table 3. Disease conditions by organ system/category for Border Collies.

Disease condition	All conditions		Most common specific conditions in descending order
	N	%	
1 Musculoskeletal	32	18.6	Arthritis; lameness; CLR; OCD; CHD
2 Reproductive	24	14.0	Dystochia (uterine inertia=physical blockage); false pregnancy; cryptorchid
3 Respiratory	20	11.6	Kennel cough; pneumonia
4 Dermatologic	15	8.7	Mites (cheyletiella); dermatitis; alopecia; pyotraumatic dermatitis
5 Urologic	13	7.6	Cystitis; incontinence
6 Gastrointestinal	12	7.0	Colitis; diarrhoea; campylobacter; EPI; pancreatitis; vomiting
7 Neurologic	9	5.2	Seizures; deafness; IVDD; vestibular disease; vestibular syndrome
8 Trauma	7	4.1	Musculoskeletal; neurologic
9 Immune mediated	6	3.5	Unspecified; flea allergy; gluten-sensitive enteropathy
10 Aural	5	2.9	Otitis externa; aural haematoma
11 Cardiac	5	2.9	Heart murmur; pericardial effusion
12 Endocrine	5	2.9	Hypothyroidism; weight gain unspecified
13 Cancer	3	1.7	Type unspecified
14 Dental	3	1.7	Retained puppy teeth; dental disease
15 Ocular	3	1.7	Conjunctivitis; KCS; pannus
16 Unknown	3	1.7	Undiagnosed illness
17 Benign neoplasia	2	1.2	Lipoma
18 Uncode and other	2	1.2	Fluid retention; pyrexia
19 Anal gland	1	0.6	Anal sacculitis
20 Behaviour	1	0.6	Unspecified
21 Cardiopulmonary	1	0.6	Pleural effusion
Total	172	100.0	