

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

Summary results of the  
Purebred Dog Health Survey  
for the Bouvier Des Flandres breed

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%.

## The Bouvier Des Flandres breed

A total of 140 forms were sent out and 45 were returned, representing 91 live dogs. This breed had a 32.1 % response rate (45/140) and it represented 0.33% of all returns (45/13,741).

### **Mortality data**

A total of 39 deaths were reported and this represents 0.25 % of all deaths reported in the survey (39/15,881). The median age at death for the Bouvier Des Flandres breed was 11 years and 4 months (min = 9 months, max = 18 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 the Bouvier Des Flandres breed. Age at death is presented for the most common causes of death (Figure 2).

Table 1. Causes of death by organ system/category for the Bouvier Des Flandres breed.

Cause of death	No. of deaths	% of deaths	Most common specific causes in descending order
1 Cancer	12	30.8	Unspecified; mammary – type unspecified
2 Old age	11	28.2	Old age
3 Cardiac	6	15.4	
4 Combinations	2	5.1	Cancer & heart failure; multiple organ failure & paresis
5 Immune mediated	2	5.1	AIHA; AIHA & thrombocytopaenia (Evan's syndrome)
6 Trauma	2	5.1	Road traffic accident; unspecified
7 Behaviour	1	2.6	Aggression
8 Cerebral vascular	1	2.6	Stroke or cerebral vascular accident
9 Gastrointestinal	1	2.6	Gastric dilatation/volvulus (GDV)
10 Neurologic	1	2.6	Seizures
Total	39	100.0	

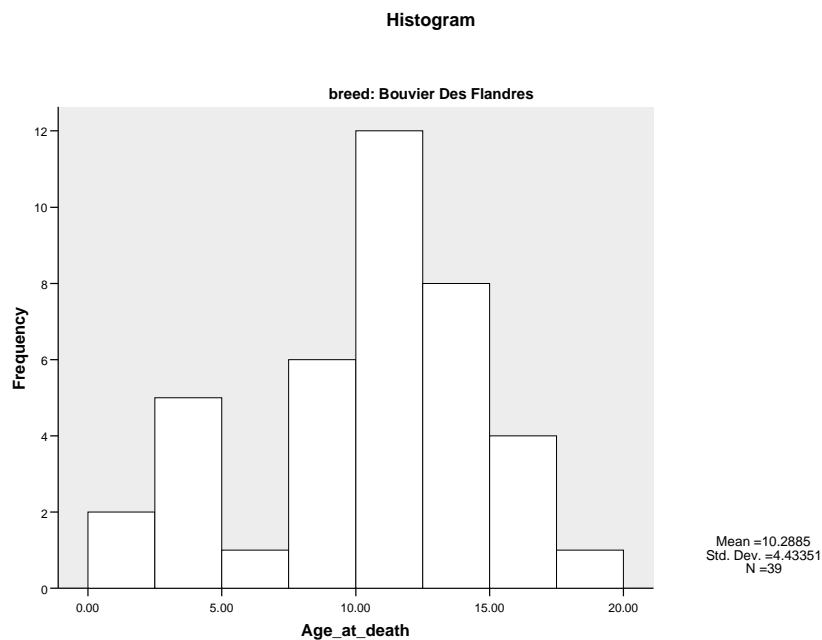


Figure 1. Histogram showing the frequency (as number of dogs) of age at death (in years) for the 39 Bouvier Des Flandres deaths with age at death reported.

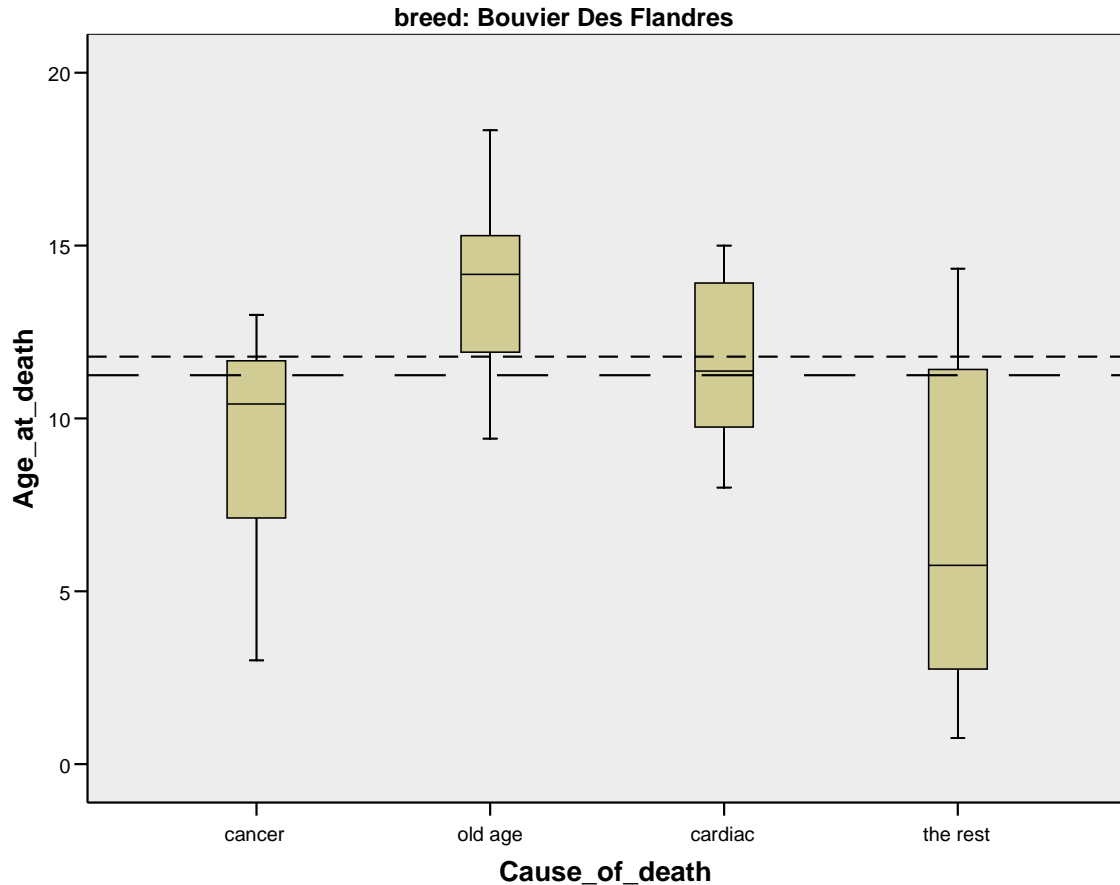


Figure 2. Box and whisker plot of age at death in years for the most common causes of death in the Bouvier Des Flandres breed (N=39). The dashed line (---) is the overall median age at death for all dogs in the survey and the dotted line (----) is the overall median age of death for the Bouvier Des Flandres breed. The solid line within each grey box represents the median age at death from the condition.

### Morbidity data

The median current age of the 91 live dogs with a reported age was 4 years and 4 months (min=5 months, max=18 years and 11 months, Figure 3). Health information was reported for 91 live dogs of which 55 (60%) were healthy and 36 (40%) had at least one reported health condition, resulting in a total of 53 reported conditions with a median of 1 condition/dog (min=1, max=4).

The median current age of all healthy dogs with a reported age (N=55) was 3 years and 3 months (min=5 months, max=13 years and 10 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=36) was 5 years and 5 months (min=8 months, max=18 years and 11 months). The median age at diagnosis for all disease occurrences with a reported age at diagnosis (N=53) was 2 years and 1 month (min= 1 month, max= 9 years and 7 months, Figure 4). Table 3 shows the disease conditions for the Bouvier Des Flandres breed. Age at diagnosis is presented for the most common disease conditions (Figure 5).

Table 2. Distribution of gender and neuter status for the 91 Bouvier Des Flandres breed with reported gender and neuter status.

Gender	Neuter status		Totals
	Intact	Neutered	
Female	33	23	56 (62%)
Male	26	9	35 (38%)
Totals	59 (65%)	32 (35%)	91 (100%)

There was no association between gender and neuter status (P=0.1355).

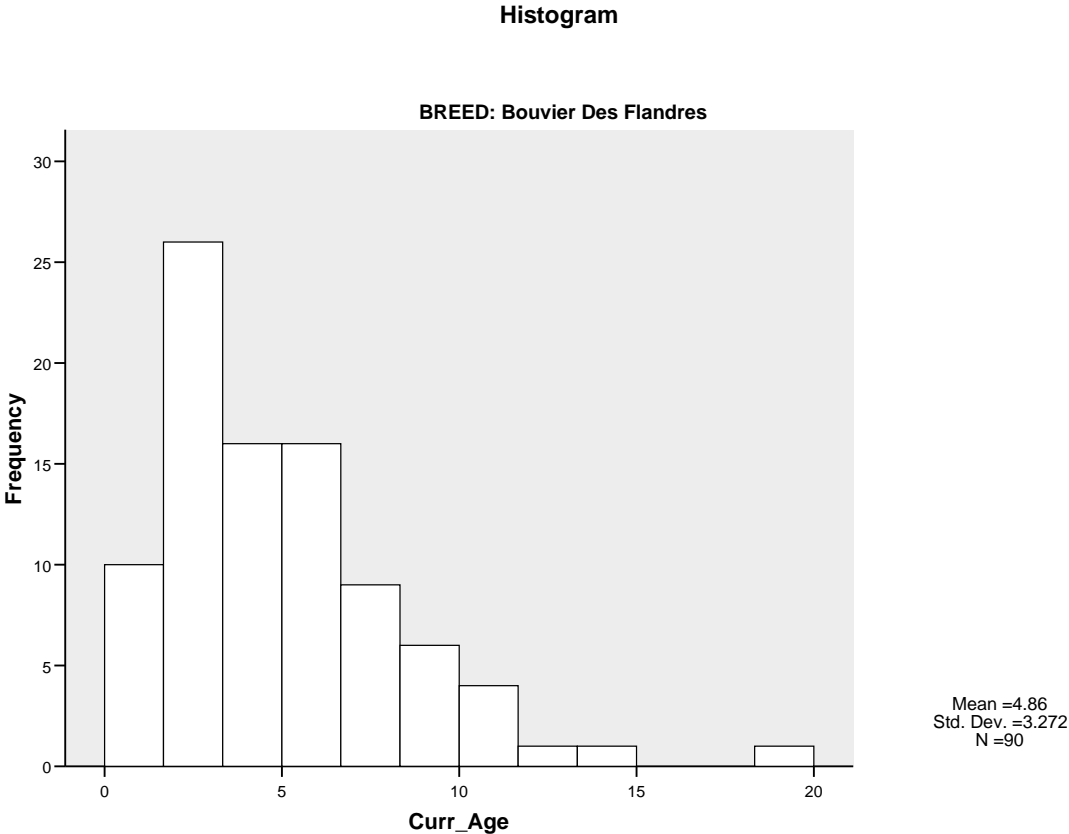


Figure 3. Histogram showing frequency of current age in years for the 90 live the Bouvier Des Flandres breed with age reported.

### Histogram

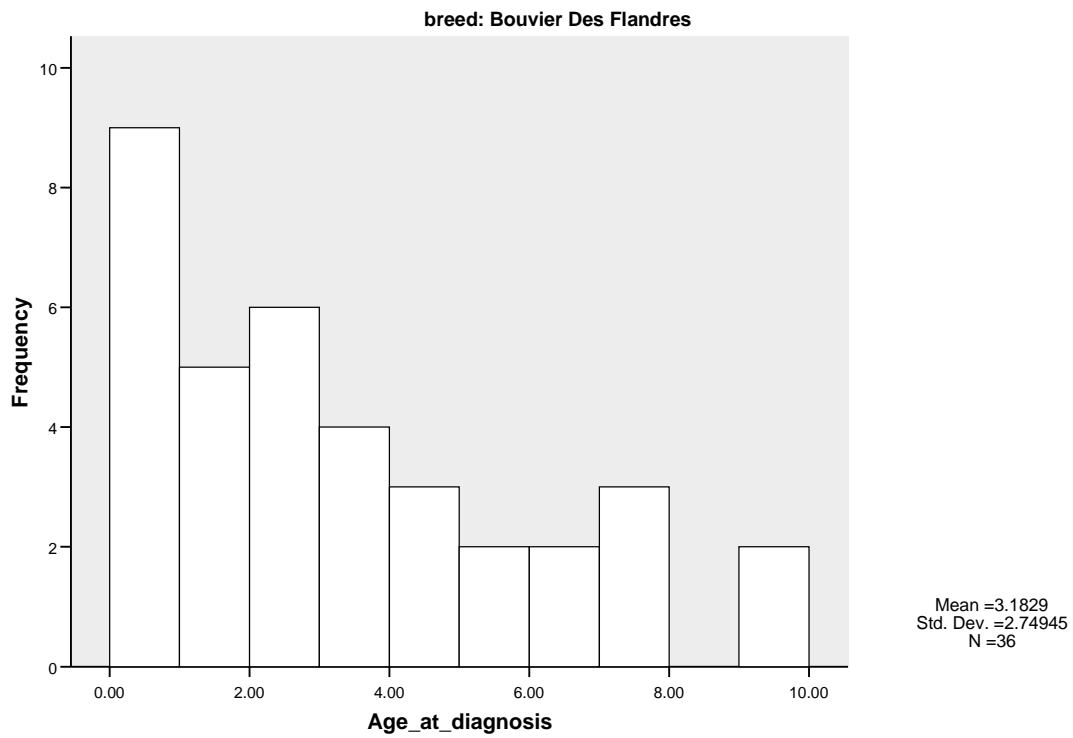


Figure 4. Histogram showing frequency of age at diagnosis for the 36 the Bouvier Des Flandres breed with one or more disease conditions, using the youngest age at which a disease condition was first reported for those dogs with more than one disease condition or episode.

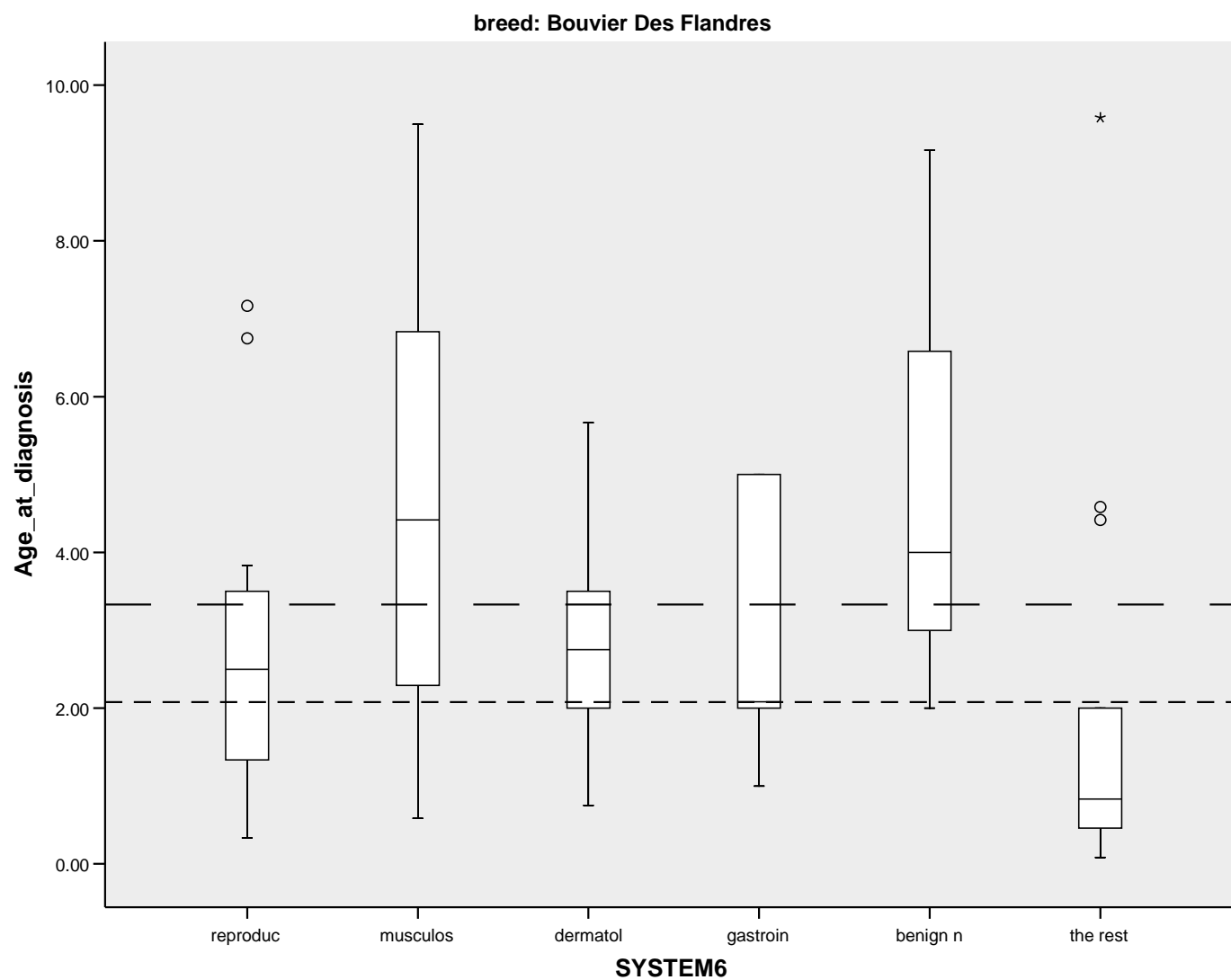


Figure 5. Box and whisker plot of age at diagnosis in years for the most common disease conditions in descending order for the Bouvier Des Flandres breed (N=53 conditions with age reported). The dashed line (---) is the overall median age at diagnosis for all dogs in the survey and the dotted line (----) is the overall median age at diagnosis for the Bouvier Des Flandres breed. 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 the Bouvier Des Flandres breed.

Disease condition	All conditions		Most common specific conditions in descending order
	N	%	
1 Reproductive	12	22.6	Pyometra;agalactia; false pregnancy; irregular heat cycles
2 Musculoskeletal	11	20.8	Arthritis (hips > other); CHD; cruciate ligament strain; patellar luxation; stiff joints
3 Dermatologic	6	11.3	Dermatitis; pyotraumatic dermatitis; alopecia
4 Gastrointestinal	5	9.4	Colitis; vomiting
5 Ocular	5	9.4	Entropion
6 Benign neoplasia	3	5.7	Unspecified; lipoma
7 Immune mediated	3	5.7	Atopy; food hypersensitivity; gluten-sensitive enteropathy
8 Urologic	3	5.7	Incontinence; cystitis
9 Behaviour	1	1.9	Aggression
10 Cancer	1	1.9	Unspecified
11 Neurologic	1	1.9	Seizures
12 Respiratory	1	1.9	Noisy breathing
13 Other	1	1.9	Uncodeable
Total	53	100.0	