

Health Survey 2014 report.

Firstly, on behalf of the Spanish Water Dog Club and myself, a big thank you must be said to all of those who participated in the survey. We had a large number of responses, giving data for **286** individual dogs. This accounts for 16% of the Kennel Club registered dogs (at time of report; April 2015). Of these individuals, 13 were deceased and 273 were living. The majority of the dogs were based in the United Kingdom, however five of these dogs were overseas, but were related to our British stock and therefore their responses were accepted.

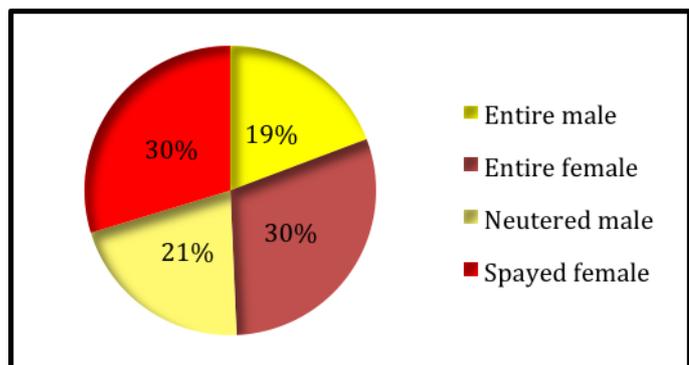
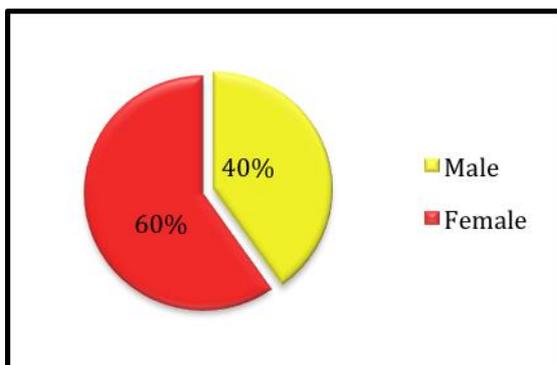


The survey was aimed at all Spanish Water Dogs, regardless of health and was sent out via the UK SWD Club, Facebook and emails from both the Club and kindly by the Health Team at the Kennel Club. It was carried out to provide us with information with regards to the general representation of the current health of the breed within the United Kingdom. Following this, it may help us to make future decisions to improve the health of our unique and rustic breed.

General information

Gender

Of the 286 dogs, 115 (40%) of these individuals were male, and 172 (60%) were female. 141 (49%) of all dogs were entire, and 146 (51%) were neutered/spayed. The average age of neutering males was 28.4 months, whilst the average age for spaying bitches was 35.3 months.



Origin

36 (12.5%) of the 286 dogs were imports, with 34 dogs originating from Spain, whilst the remaining two from France and the Netherlands.

Activities

With regards to dogs participating in certain activities, it seems that the SWD excels in a wide variety of disciplines (please see table 1 below). A large number of SWD's are first and foremost companion animals, but there are many who go a step further than this and participate in activities such as agility, showing and

flyball. 60 dogs are listed as being breeding animals, but were also listed to compete in trained activities or a companion animal.

Activites	Number	Activity	Number
Showing	105	Obedience	67
Companion	155	Pets As Therapy	2
Breeding	60	Herding	2
Agility	87	Scentwork	1
Flyball	29	Rally	2
Gundog	52	Truffle hunting	1
Water Training	11	Frisbee	1
Working tests	1		

Table 1: Number of SWD's participating in various activities.

Colours

Each dog also had his or her coat colour recorded on the survey, which has given us an understanding as to where the most common colour lies within the breed (see table 2). Black with white markings and brown with white markings ranked the highest.

Colour	Number	Percentage
Cream	19	6.6%
Brown/White Markings	48	16.8%
Black/White Markings	54	18.9%
Brown	41	14.3%
Gold/White Markings	7	2.4%
Black	30	10.5%
Brown/White	24	8.4%
Black/White	22	7.7%
White/Gold	1	0.4%
White/Black	9	3.1%
Brown/Tan	2	0.7%
White/Brown	14	4.9%
Black/Tan	1	0.4%
Cream/White	2	0.7%
Gold/White	4	1.4%
Tri-coloured	1	0.4%
White	7	2.4%

Table 2: Spanish Water Dog colours

Vaccinations

The responses regarding vaccinations varied. The majority of the dogs (188) were vaccinated annually, 42 dogs were vaccinated every three years, and eight dogs vaccinated every other year. Two dogs received homeopathic remedies, and 37 dogs only had their initial vaccines. However, of these 37 dogs, 18 individuals were involved in titer testing. This involves a blood test that measures the

amount of antibodies in the blood to a given disease. Ten dogs received no vaccinations.

Health Screening

Prcd-PRA (Progressive rod-cone degeneration – Progressive Retinal Atrophy)

105 (36%) dogs in the survey have been tested for prcd-PRA, with the remaining 74% not currently tested at the time of the survey. Of these 105 tested dogs, one has been tested as affected for prcd-PRA. The age of onset for this dog was seven years old. 33 dogs were recorded as carriers, and the remaining 71 tested as clear. However, upon studying each individual dog's sire and dam test results, it was discovered that of the 286 dogs involved in the study, 28 (9.7%) were hereditary clear for prcd-PRA. It must be remembered that carriers are not genetically affected by the disease, but when bred with, care must be taken when pairing with a suitable mate.

Primary Glaucoma/Goniodysgenesis

131 (45%) dogs in this study have been tested for primary glaucoma/goniodysgenesis. 11 (8%) of these dogs tested as affected, whilst the remaining 120 (92%) were tested as unaffected. Three of the affected dogs have suffered from primary glaucoma/goniodysgenesis, whereas one dog that has tested unaffected has suffered from secondary glaucoma.

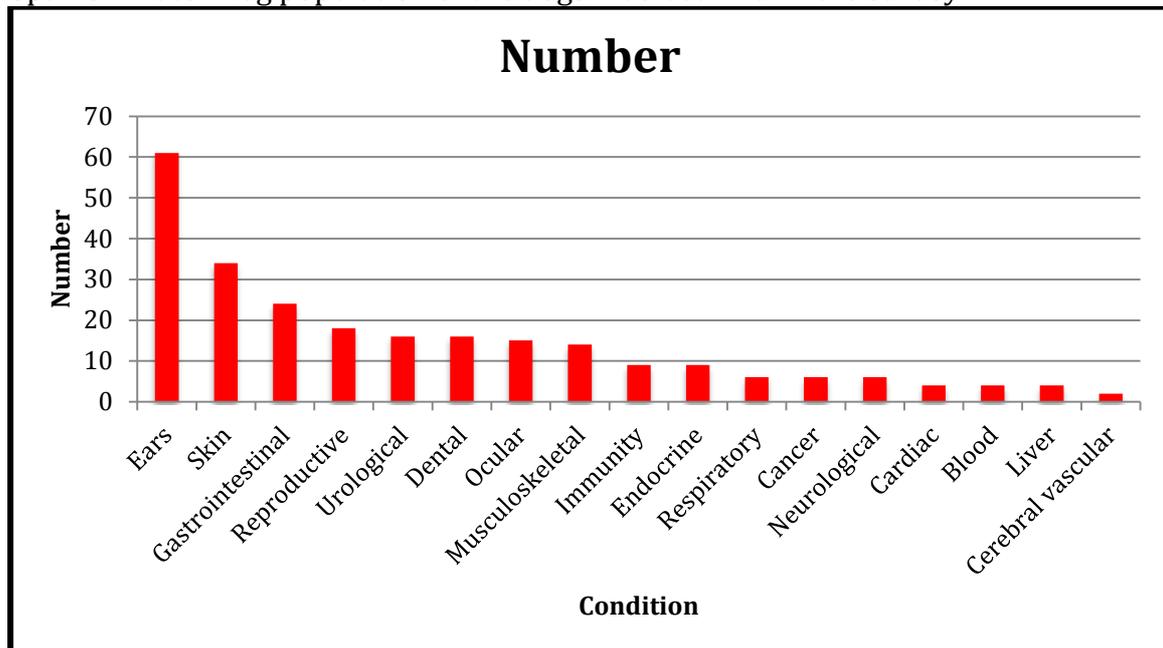
Although 8% is a low number of dogs affected, we must still work together with the aim to nearly eradicate this condition in the breed. At this moment in time it is unsure as to whether a DNA test can be created for the SWD. If this test can be created, we will be able to locate carriers in the population and therefore reduce the chance of producing affected puppies.

Hip Dysplasia (HD)

138 (48%) of the dogs involved in the survey have been tested for HD. The average hip score for the SWD according to the British Veterinary Association (BVA) at the time of the survey is 16. The average hip score for this survey is (13.1). However, it must be noted that not all dogs were scored on the BVA system. Fifteen dogs were scored with the use of PennHIP. Of these fifteen dogs eight of them fit into the 90th percentile category, two in the 80th and 70th, and one in the 60th, 40th and 30th percentile. Of the 138 tested dogs, 11 of these were affected by hip dysplasia. The lowest score of the affected dogs was 35, and the highest was 57.

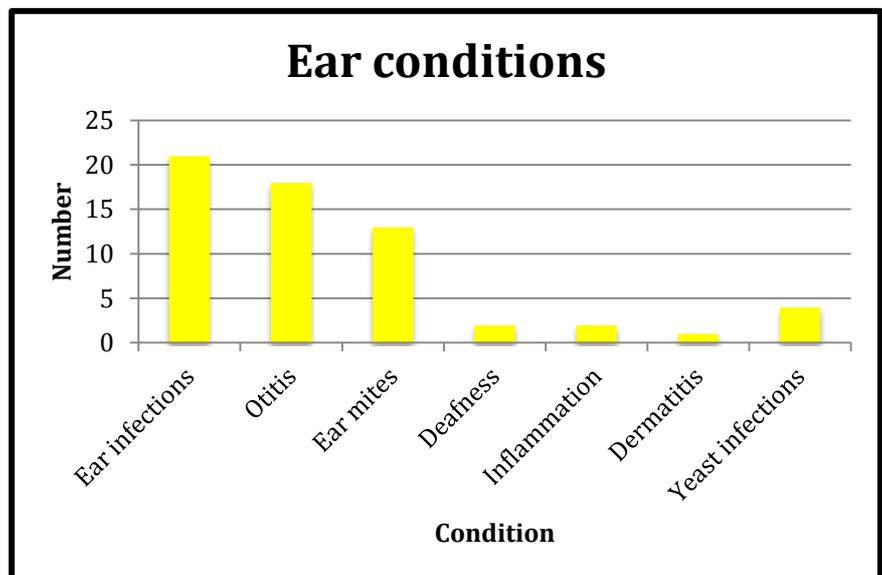
Further health issues

The graph below shows the prevalence of health problems across the national Spanish Water Dog population of the dogs involved within the survey.



Ears

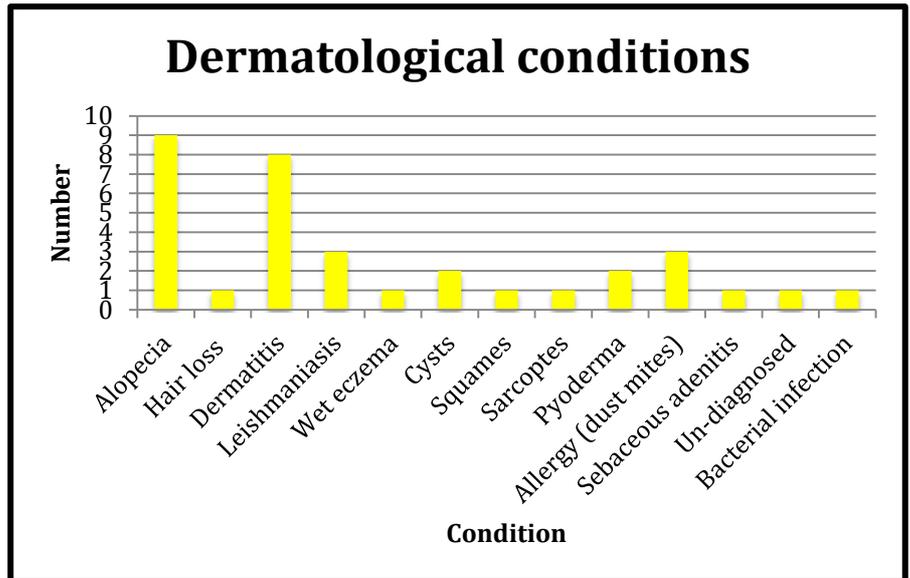
Of the 286 dogs recorded on the survey, 61 (21.3%) of them suffered from at least one ear issue. The majority of dogs (21) suffered from general ear infections, whilst 18 suffered from otitis. Ear mites were also frequently noted in 13 dogs and this could be a root cause for ear infections. Deafness occurred in two dogs, and although the age of onset was not noted, it can be predicted that this is age related due to these two individuals being of the age of 13 and 15. General inflammation of the ear was present in two dogs, and dermatitis located in one dog. Yeast infections were noted in four individuals and this is often found in dogs that are frequently in water.



Dermatology

Thirty-four dogs (12%) listed in this survey suffer or suffered from skin conditions. The most common condition was alopecia with nine dogs suffering, however dermatitis also affected a number of dogs (8). Unfortunately many dogs had more than one of these skin conditions – one dermatitis affected dog also

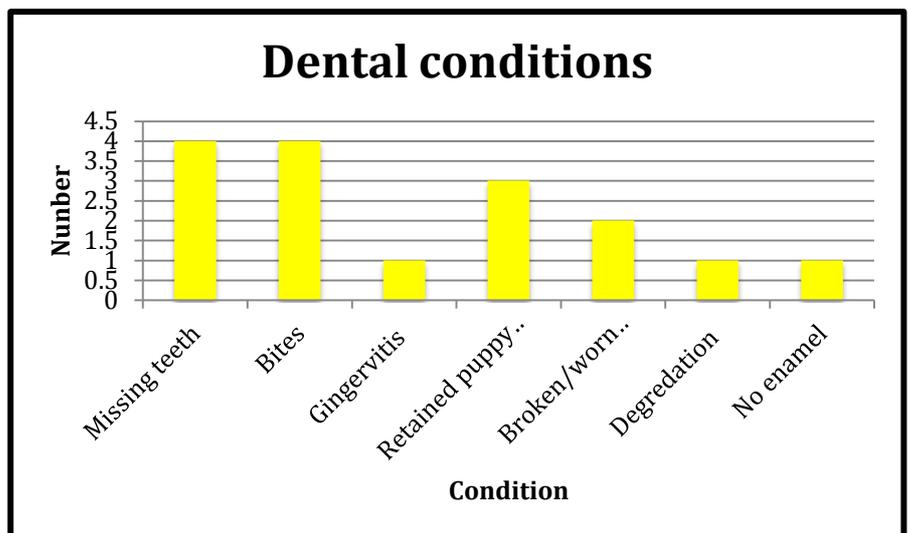
suffered from leishmaniasis, and another also had allergies to certain food and substances. An alopecia-affected dog also was affected by dermatitis, and another suffered from pyoderma. Hair loss on one of the dogs was due to an underactive thyroid, also known as hypothyroidism. This hair loss occurred because hair growth



depends on the proper functioning of the thyroid gland, and therefore the gland produces abnormal levels of thyroid hormones. Leishmaniasis, an infectious disease caused by certain parasites, was present in three dogs. Allergies are common in SWD's, and all three dogs suffered from dust mites allergies. One of these dogs also suffered from allergies to cereal and pork. Pyoderma, a bacterial infection of the skin, was present in two dogs.

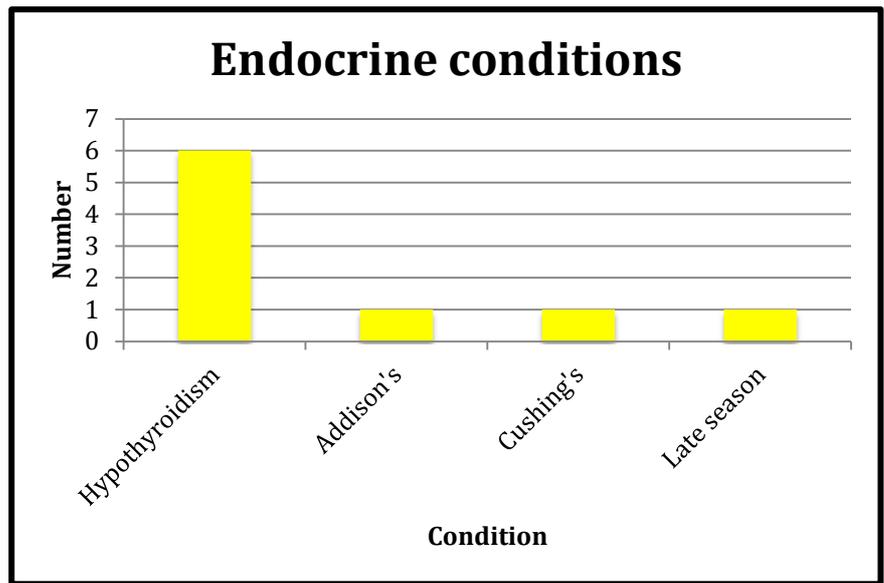
Dental

A dog should have 42 teeth, but unfortunately four dogs occurred to have missing teeth (hypodontia). The SWD breed standard asks for a 'perfect, rectangular and complete scissor bite', but, again, four dogs had incorrect bites, and this may be due to genetics, nutrition, the environment, and the mechanical forces generated by the interlock of the upper and lower teeth. One dog had a slight reverse scissor bite, two had an undershot bite, and another, when reaching around nine years of age had a level bite. Three dogs were found to have retained puppy teeth. This means that the puppy tooth is still present in the mouth after the replacement adult tooth has erupted. If a puppy tooth and an adult tooth are in the same socket, the crowding of the two teeth can often lead to gingivitis, an inflammation of the gum tissue, which one dog in the survey suffered with. The malposition of the teeth means that they often rub against one another, which wears away the enamel and in turn will weaken the tooth, and this was present in one of the dogs.



Endocrine

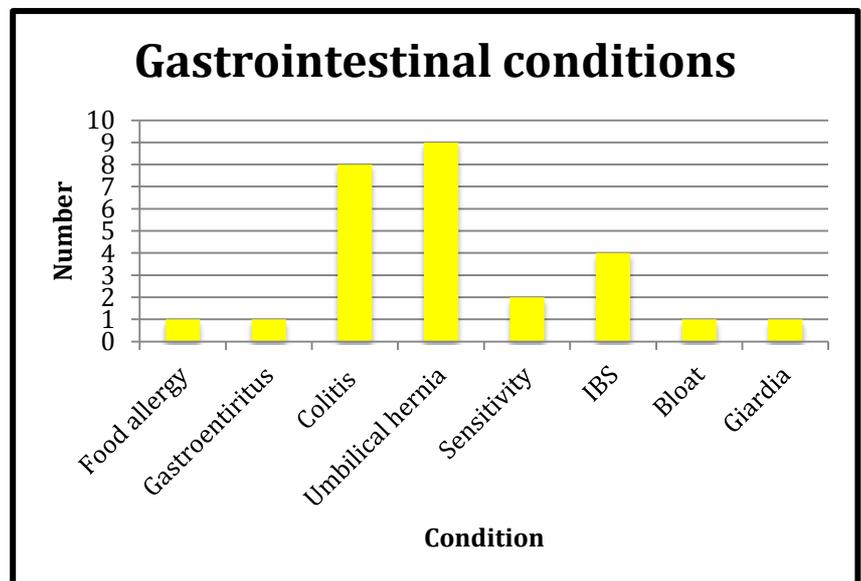
The endocrine system consists of eight major glands, and these make hormones, which affect growth and development, metabolism, sexual function, reproduction, and mood. Six dogs involved in the survey suffered from hypothyroidism, and this condition is considered to be one of the most common hormonal disorders in the dog.



Addison's disease (Hypoadrenocorticim), a condition where the adrenal glands do not produce as much of the steroid hormones, such as cortisol, as they normally do, was present in one dog. Cushing's disease was also present in one dog and this disorder, a relatively common hormonal disease, results in the overproduction of steroid hormones by the adrenal glands.

Gastrointestinal

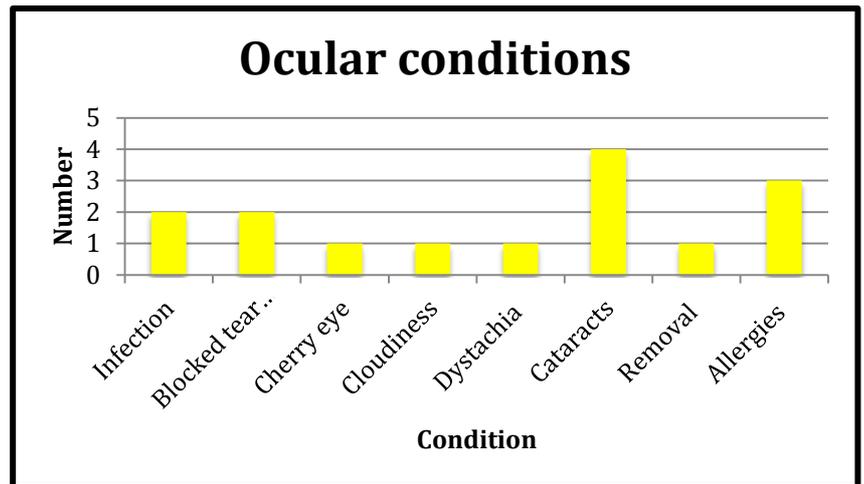
Twenty-four (8.4%) of dogs in the survey suffered from gastrointestinal conditions. Umbilical hernias were the most dominant condition as nine of these 24 dogs were noted as sufferers. These hernias are considered hereditary in some breeds, although trauma is also a known cause. After studying pedigrees of the nine dogs, it would seem that hernias in the SWD may not be hereditary but it is worth monitoring. Colitis was noted in eight individual dogs and this refers to the inflammation of the large intestine or colon. This can be caused by stress, infections and parasites, and trauma for example. Irritable bowel syndrome (IBS) has been present in four of the 286 dogs within the survey.



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Ocular

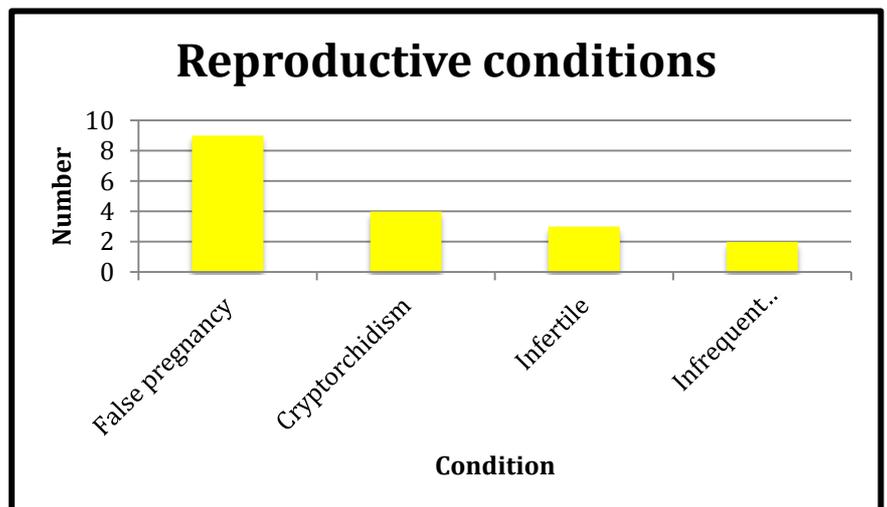
The most common eye condition within the dogs in the survey was cataracts. This affected a low number of only 4 dogs (2%). One dog had to have one eye removed due to an airborne disease and injury. Infections only affected two dogs, as did blocked tear ducts. Although not noted in this graph, it must be remembered that prcd-PRA



and glaucoma fall into this category. Fortunately there were no dogs affected by prcd-PRA, and only a small number of 11 dogs affected for glaucoma.

Reproductive

Within the reproductive section of the survey, eighteen dogs were noted as having reproductive conditions. The main condition was false pregnancies (pseudo-pregnancies) in nine bitches. Cryptorchidism was second most common and was present in four dogs. This condition is considered to be hereditary and an



autosomal recessive trait, therefore it is carried in the lines of both the sire and dam. Cryptorchidism is associated with other inherited conditions such as hip dysplasia. Three dogs were infertile, although one of these dogs was prescribed antibiotics in case this was due to infection.

Other

	No. of problems	No. of dogs affected	Specific conditions (no. affected)
Cardiac	3	4	Heart murmur (2), Enlarged heart (1), Mitral Valve Disease (1)
Cerebral vascular	1	2	Stroke (2)
Blood	3	4	Autoimmune Haemolytic Anaemia (2), Cancer (1), Thrombocytopenia (1)

Liver	4	4	Chronic Liver Disease (1), Poor liver function (1), Hepatitis (1), Pancreatitis (1)
Respiratory	3	6	Allergic reaction (1), Kennel Cough (4), Pneumonia (1)
Cancer	5	6	Spread (2), Mammary (1), Leukaemia (1), Lymphoma (1)
Neurological	2	6	Polyradicalneuropathy (1), Epilepsy (2)
Immunity	5	9	Autoimmune disease (3), Meningitis (2), Polyradicalneuropathy (2), Autoimmune Haemolytic Anaemia (2), Thrombocytopenia (1)
Urological	7	16	Incontinence (4), Urinary tract disorder (4), Crystals in urinary tract (1), Infection (3), Cystitis (2), Kidney disease (1), Juvenile vaginitis (1)
Musculoskeletal	7	14	Arthritis (7), Patella luxation (1), Weakness (1), Ruptured cruciate (2), Septic arthritis (1), lower back disc problem (1), Scoliosis of thoracic and cervical spine (1)

Litters

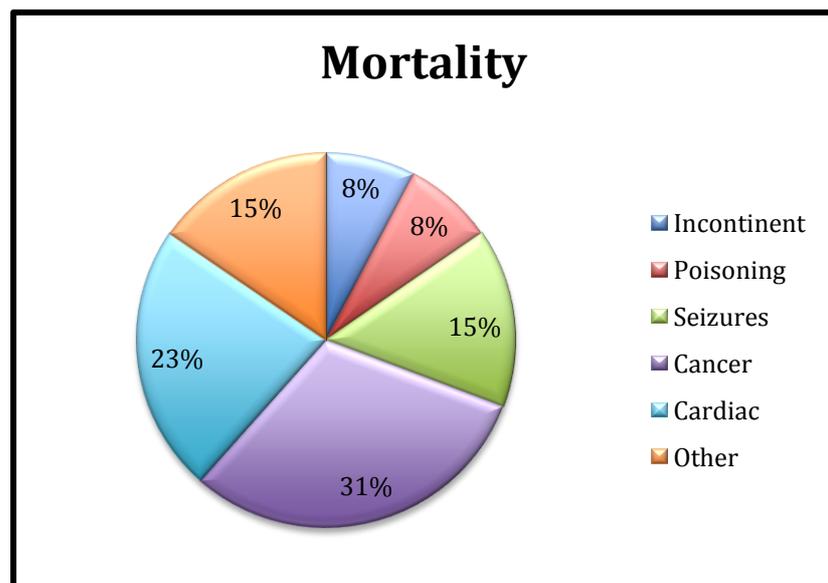
Seventy-six dogs in the study had sired or whelped one or more litters of SWD puppies. The average litter size ranged from two to twelve puppies, but the average size for the survey was six puppies. The Kennel Club's 2007 list of average litter size per breed lists the SWD as having an average litter size of 5.85.

Mortality

Thirteen (4.6%) of the 286 dogs within the study were deceased. The age of decease ranged from two years old to fourteen years, although three dogs listed as deceased did not provide ages.

Four of the thirteen dogs passed away due to cancers, including lymphoma, leukaemia, and cancer of the spleen. Cardiac deaths

included two dogs that suffered from heart failure, and the third suffered from a heart attack at eleven years old. Within the 'other' category, one dog passed away due to natural causes, and the other was euthanized at thirty months, but unfortunately no further information was given as to a reason why.



Health tested parents

There were a number of dogs (227) involved in the survey who had health tested parents. These tests include hip scoring, prcdPRA, gonioscopy, and the annual eye test. Not all of these tests were carried out on each dog, but they were tested for at least one health issue. There were three dogs that had also been sired by dogs tested for hypothyroidism, and another had come from parents that had been tested for Leishmaniasis. Owners of fifty-two dogs were unsure as to whether they were from health tested parents, and a further seven dogs were from dogs that were not health tested.

Limitations of the survey

As mentioned at the beginning of this report, data from 286 individual dogs was collected. This accounts for 16% of the Kennel Club registrations, at the time of this report, and although the SWD is a relatively rare breed in the UK, this is still a small number and therefore the next survey carried out will hopefully encourage more SWD owners to complete it and therefore we can gain even more information.

Due to this being the first survey carried out in a number of years, the main aim was to gather a general representation of the health in the SWD as a whole. However, this did not record the age of onset for health conditions, neither did it record the severity of conditions, nor the time the condition was present.

Further investigation

Following on from this 2014 survey, it is hoped that another general health survey will be conducted once every three years. However, from the results from this survey, it is planned that another survey will be distributed to enable us to gather further information on more specific health conditions within the breed – this may well cover topics such as eye and skin conditions due to the prevalence of these issues.

Acknowledgements

Once again, a thank you must go to the Health team at the Kennel Club, the SWD Club, and of course the Spanish Water Dog owners – both club members and non-club members - who took time to complete the survey for their dogs.