

Additional file 2: The 115 breeds of the full data set including the number of litters registered in the DKC from August 2022 to July 2023, average litter sizes, and median body weight of each breed in kg. Chondrodysplastic breeds are marked with a C, and brachycephalic breeds are marked with a B. The 13 breeds that were removed to produce the reduced dataset are written in regular font.

Breed name	Number of litters	Average litter size	Median breed weight in kg
Alaskan malamute	10	4.9	36.5
American cocker spaniel	14	3.6	12.0
Australian shepherd	64	7.2	24.0
Basset fauve de Bretagne ^C	10	5.3	17.0
Basset hound ^C	19	5.6	27.5
Beagle	38	5.2	11.0
Belgian shepherd dog, Malinois	14	7.7	28.0
Belgian shepherd dog, Tervueren	12	5.2	28.0
Bernese mountain dog	118	4.6	42.0
Bichon frisé ^C	31	4.3	4.5
Border collie	101	5.9	18.0
Border terrier	45	4.0	6.0
Boston terrier ^B	32	4.0	8.0
Boxer ^B	47	5.2	27.5
Breton	23	5.4	14.0
Broholmer	31	7.2	55.0
Bull terrier	13	4.2	29.0
Bullmastiff	14	6.2	50.0
Cairn terrier ^C	81	4.2	6.8
Cavalier king Charles spaniel	237	4.1	6.7
Chihuahua, long-haired	65	2.5	2.3
Chihuahua, smooth-haired	49	2.0	2.3
Chinese crested dog	16	3.7	5.5
Chow chow	27	4.0	25.0
Collie, rough	32	4.8	27.5
Continental toy spaniel, papillon	39	3.2	3.3
Continental toy spaniel, phalène	12	2.8	3.3
Coton de tular ^C	258	3.3	4.7
Dachshund, long-haired, miniature ^C	29	3.8	4.5
Dachshund, long-haired, rabbit ^C	18	4.1	3.5
Dachshund, long-haired, standard ^C	17	4.9	9.0
Dachshund, wire-haired, miniature ^C	26	3.9	4.5
Dachshund, wire-haired, standard ^C	60	5.3	9.0
Dachshund, smooth-haired, miniature ^C	11	3.8	4.5
Dachshund, smooth-haired, standard ^C	19	5.6	9.0
Dalmatian	11	7.7	29.5
Danish spitz	17	6.3	15.0

Danish-Swedish farm dog	104	4.6	9.5
Dobermann	18	8.0	38.5
Dutch kooikerhondje	12	4.8	12.5
Dutch schapendoes	14	5.6	15.0
English bulldog ^B	34	4.4	23.9
English cocker spaniel	120	4.8	13.0
English setter	18	5.7	25.0
English springer spaniel	40	6.3	23.0
Eurasier	45	6.0	25.0
Finnish lapponian dog	60	4.7	20.0
Flat coated retriever	41	7.5	30.5
Fox terrier (wire)	20	4.1	7.7
French bulldog ^B	58	4.4	11.0
German shepherd dog, long-haired	48	3.7	32.5
German shepherd dog, short-haired	325	5.7	32.5
German short-haired pointing dog	37	7.0	27.5
German wire-haired pointing dog	75	8.1	29.5
Golden retriever	312	7.2	31.5
Gordon setter	11	7.3	27.5
Great Dane	22	6.8	62.5
Griffon Belge ^B	10	1.3	4.8
Griffon Bruxellois ^B	14	1.9	4.8
Havanese ^C	473	4.9	6.0
Hungarian short-haired pointer (Vizsla)	14	7.0	26.0
Icelandic sheepdog	45	4.9	14.5
Irish setter	10	7.6	17.0
Irish softcoated wheaten terrier	12	6.1	17.5
Jack Russell terrier	144	4.0	6.5
Japanese spitz	23	3.0	8.5
Kromfohrlander	11	5.8	12.5
Labrador retriever	629	6.7	30.0
Lagotto romagnolo	17	5.7	14.5
Leonberger	11	6.6	55.0
Lhasa apso ^C	32	4.3	6.5
Little lion dog	17	3.5	6.0
Maltese ^C	27	2.9	3.5
Mastiff	13	5.3	82.5
Medium size spitz	25	4.9	8.5
Miniature American shepherd	15	6.3	13.5
Miniature schnauzer, black	16	3.4	6.5
Miniature schnauzer, black and silver	30	3.4	6.5
Miniature schnauzer, pepper and salt	18	3.4	6.5
Newfoundland	24	5.2	61.0
Nova Scotia duck tolling retriever	34	6.6	20.0
Old Danish pointing dog	22	7.1	30.5
Parson Russell terrier	12	4.0	6.5

Pekingese ^{B, C}	10	2.5	5.5
Petit basset griffon vendéen ^C	13	4.2	16.0
Petit brabançon ^B	27	2.9	4.8
Pomeranian	41	2.3	2.5
Poodle, medium size	40	4.3	9.0
Poodle, miniature	95	3.1	6.5
Poodle, standard	39	7.5	22.5
Poodle, toy	46	2.5	4.5
Pug ^B	43	3.7	7.0
Rhodesian ridgeback	18	7.1	34.0
Rottweiler	50	7.0	45.5
Samoyed	15	5.7	26.5
Schipperke	15	3.3	5.5
Scottish terrier ^C	13	3.7	9.5
Shar pei	17	5.4	22.5
Shetland sheepdog	106	3.8	8.0
Shiba	32	3.0	10.5
Shih tzu ^{B, C}	80	4.6	6.3
Siberian husky	10	5.2	21.8
Small münsterländer	64	7.0	21.0
Spanish water dog	17	6.3	18.0
St. Bernard. long-haired	23	5.0	70.0
St. Bernard. short-haired	17	3.5	70.0
Stabijhoun	28	6.5	22.5
Staffordshire bull terrier	195	4.9	14.0
Tibetan spaniel	67	3.7	5.5
Welsh corgi cardigan ^C	70	6.6	14.0
Welsh corgi pembroke ^C	22	4.5	11.0
West highland white terrier ^C	92	3.3	8.5
Whippet	30	6.4	13.0
White Swiss shepherd dog	17	7.2	35.0
Yorkshire terrier ^C	33	3.6	3.1