

|            | C-BARQ Trait                          | C-BARQ Trait Description <sup>1</sup><br>(number of questionnaire items)                                                                                                                                           |
|------------|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Aggression | Stranger-directed                     | Severity of threatening or aggressive responses to strangers approaching or invading the dog's or owner's personal space, territory, or home range (10)                                                            |
|            | Dog-directed                          | Severity of threatening or aggressive responses when approached directly by unfamiliar dogs (4)                                                                                                                    |
|            | Owner-directed                        | Severity of threatening or aggressive responses to the owner or other members of the household when challenged, manhandled, stared at, stepped over, or when approached while in possession of food or objects (8) |
|            | Dog Rivalry                           | Severity of aggressive or threatening responses to other familiar dogs in the household (4)                                                                                                                        |
| Fear       | Stranger-oriented                     | Severity of fearful or wary responses when approached directly by strange or unfamiliar people (4)                                                                                                                 |
|            | Dog-oriented                          | Severity of fearful or wary responses when approached directly by unfamiliar dogs (4)                                                                                                                              |
|            | Nonsocial                             | Severity of fearful or wary responses to sudden or loud noises, traffic, and unfamiliar objects and situations (6)                                                                                                 |
|            | Separation-related behavior (anxiety) | Frequency of vocalizing and/or destructive behavior when separated from the owner, including autonomic signs of anxiety—restlessness, loss of appetite, trembling, and excessive salivation (8)                    |
|            | Touch Sensitivity                     | Severity of fearful or wary responses to potentially painful or uncomfortable procedures, including bathing, grooming, nail-clipping, and veterinary examinations (4)                                              |

**Table S1. C-BARQ fear and aggression trait descriptions (numbers of questionnaire items in parentheses)**

| Breed                      | Breed | Size(Kg) | AgrStra | AgrDog | AgrOwn | AgrRiv | FearStra | FearDog | FearNon | FearSep |
|----------------------------|-------|----------|---------|--------|--------|--------|----------|---------|---------|---------|
| Australian Shepherd        | AUSS  | 25       | 0.757   | 1.056  | 0.071  | 0.557  | 0.685    | 0.721   | 0.762   | 0.423   |
| Beagle                     | BEAG  | 10       | 0.584   | 0.977  | 0.406  | 0.846  | 0.669    | 1.035   | 0.991   | 0.966   |
| Boston Terrier             | BOST  | 8        | 0.522   | 1.186  | 0.097  | 0.667  | 0.465    | 0.669   | 0.799   | 0.539   |
| Boxer                      | BOX-  | 29       | 0.640   | 1.223  | 0.083  | 0.495  | 0.549    | 0.606   | 0.777   | 0.608   |
| Bulldog                    | BULL  | 24       | 0.427   | 0.950  | 0.209  | 0.773  | 0.470    | 0.779   | 0.774   | 0.417   |
| Cavalier King Charles      | CKCS  | 6        | 0.342   | 0.376  | 0.127  | 0.505  | 0.575    | 0.784   | 0.596   | 0.536   |
| Chihuahua                  | CHIH  | 2        | 1.081   | 1.348  | 0.342  | 0.941  | 1.275    | 1.260   | 1.085   | 0.746   |
| Cocker Spaniel             | ACKS  | 10       | 0.715   | 0.945  | 0.261  | 0.652  | 0.836    | 0.852   | 0.796   | 0.699   |
| Dachshund                  | DASH  | 7        | 1.277   | 1.426  | 0.292  | 0.766  | 1.192    | 1.139   | 1.016   | 0.787   |
| Doberman Pinscher          | DOBP  | 35       | 0.777   | 1.018  | 0.061  | 0.498  | 0.533    | 0.564   | 0.527   | 0.458   |
| English Springer Spaniel   | ESSP  | 23       | 0.544   | 1.145  | 0.187  | 0.604  | 0.606    | 0.899   | 0.571   | 0.542   |
| French Bulldog             | FBUL  | 11       | 0.607   | 1.218  | 0.373  | 1.121  | 0.314    | 0.852   | 0.652   | 0.690   |
| German Shepherd            | GSD-  | 37       | 0.755   | 1.279  | 0.090  | 0.557  | 0.559    | 0.685   | 0.633   | 0.498   |
| German Shorthaired Pointer | GSHP  | 26       | 0.518   | 0.852  | 0.111  | 0.535  | 0.455    | 0.606   | 0.831   | 0.661   |
| Golden Retriever           | GOLD  | 32       | 0.292   | 0.653  | 0.115  | 0.374  | 0.293    | 0.611   | 0.712   | 0.354   |
| Great Dane                 | DANE  | 62       | 0.614   | 0.936  | 0.720  | 0.451  | 0.747    | 0.596   | 0.721   | 0.536   |
| Havanese                   | HAVA  | 6        | 0.548   | 0.695  | 0.160  | 0.414  | 0.695    | 0.862   | 0.683   | 0.517   |
| Labrador Retriever         | LAB-  | 30       | 0.427   | 0.679  | 0.099  | 0.311  | 0.350    | 0.585   | 0.621   | 0.429   |
| Mastiff                    | MAST  | 82       | 0.618   | 0.753  | 0.074  | 0.454  | 0.737    | 0.591   | 0.839   | 0.448   |
| Pembroke Welsh Corgi       | PEMB  | 12       | 0.489   | 1.045  | 0.165  | 0.729  | 0.392    | 0.758   | 0.928   | 0.439   |
| Pomeranian                 | POM-  | 3        | 0.706   | 0.972  | 0.346  | 0.784  | 0.669    | 0.873   | 0.777   | 0.649   |
| Standard Poodle            | SPOO  | 25       | 0.606   | 0.872  | 0.119  | 0.542  | 0.549    | 0.664   | 0.696   | 0.542   |
| Toy Poodle                 | TPOO  | 4        | 0.772   | 0.852  | 0.335  | 0.740  | 0.977    | 0.998   | 0.984   | 0.944   |
| Pug                        | PUG-  | 7        | 0.437   | 0.679  | 0.171  | 0.447  | 0.392    | 0.800   | 0.680   | 0.702   |
| Rottweiler                 | ROTT  | 45       | 0.657   | 0.867  | 0.211  | 0.630  | 0.287    | 0.382   | 0.480   | 0.332   |
| Shetland Sheepdog          | SSHP  | 8        | 0.482   | 0.622  | 0.133  | 0.531  | 0.873    | 0.747   | 0.915   | 0.448   |
| Shih Tzu                   | SHIH  | 6        | 0.610   | 0.930  | 0.386  | 0.700  | 0.653    | 1.024   | 1.000   | 0.771   |
| Siberian Husky             | HUSK  | 24       | 0.118   | 0.721  | 0.152  | 0.575  | 0.220    | 0.382   | 0.361   | 0.473   |
| Yorkshire Terrier          | YORK  | 3        | 0.953   | 1.295  | 0.329  | 0.806  | 1.035    | 0.988   | 1.047   | 0.909   |

**Table S2. C-BARQ behavioral phenotypes used in the discovery analysis.**

Breeds highlighted in orange are the only ones included in Vaysse et al. 2011. The full list was included in Boyko et al.2010.

DISCLAIMER: The C-BARQ dataset is continuously being updated as new subjects are added to the database. For future derivations of this work, please contact the C-BARQ team directly for the most updated data.

| Breed <sup>1</sup>   |     | Trait     | N   | Mean  | StDev | Var   |
|----------------------|-----|-----------|-----|-------|-------|-------|
| Belgian Tervuren     | BeT | DogAggr   | 110 | 0.908 | 0.814 | 0.663 |
| Belgian Tervuren     | BeT | DogFear   | 110 | 0.616 | 0.821 | 0.674 |
| Belgian Tervuren     | BeT | NonFear   | 112 | 0.616 | 0.646 | 0.417 |
| Belgian Tervuren     | BeT | OwnAggr   | 112 | 0.118 | 0.281 | 0.079 |
| Belgian Tervuren     | BeT | RivalryAg | 107 | 0.635 | 0.632 | 0.399 |
| Belgian Tervuren     | BeT | SepFear   | 112 | 0.364 | 0.493 | 0.243 |
| Belgian Tervuren     | BeT | StrAggr   | 112 | 0.64  | 0.542 | 0.293 |
| Belgian Tervuren     | BeT | StrFear   | 111 | 0.632 | 0.889 | 0.791 |
| Belgian Tervuren     | BeT | TouchFear | 111 | 0.501 | 0.48  | 0.231 |
| Bernese Mountain Dog | BMD | DogAggr   | 195 | 0.506 | 0.676 | 0.456 |
| Bernese Mountain Dog | BMD | DogFear   | 194 | 0.5   | 0.689 | 0.474 |
| Bernese Mountain Dog | BMD | NonFear   | 195 | 0.622 | 0.678 | 0.46  |
| Bernese Mountain Dog | BMD | OwnAggr   | 195 | 0.061 | 0.195 | 0.038 |
| Bernese Mountain Dog | BMD | RivalryAg | 185 | 0.25  | 0.544 | 0.296 |
| Bernese Mountain Dog | BMD | SepFear   | 194 | 0.261 | 0.403 | 0.162 |
| Bernese Mountain Dog | BMD | StrAggr   | 194 | 0.349 | 0.397 | 0.158 |
| Bernese Mountain Dog | BMD | StrFear   | 196 | 0.619 | 0.905 | 0.818 |
| Bernese Mountain Dog | BMD | TouchFear | 193 | 0.392 | 0.469 | 0.22  |
| Border Collie        | BoC | DogAggr   | 640 | 1.068 | 0.99  | 0.98  |
| Border Collie        | BoC | DogFear   | 649 | 0.846 | 0.863 | 0.746 |
| Border Collie        | BoC | NonFear   | 650 | 0.965 | 0.792 | 0.627 |
| Border Collie        | BoC | OwnAggr   | 659 | 0.135 | 0.362 | 0.131 |
| Border Collie        | BoC | RivalryAg | 588 | 0.667 | 0.81  | 0.656 |
| Border Collie        | BoC | SepFear   | 661 | 0.472 | 0.615 | 0.378 |
| Border Collie        | BoC | StrAggr   | 649 | 0.596 | 0.678 | 0.46  |
| Border Collie        | BoC | StrFear   | 647 | 0.731 | 0.94  | 0.884 |
| Border Collie        | BoC | TouchFear | 643 | 0.75  | 0.79  | 0.624 |
| Border Terrier       | BoT | DogAggr   | 70  | 1.289 | 1.125 | 1.265 |
| Border Terrier       | BoT | DogFear   | 72  | 0.981 | 0.932 | 0.868 |
| Border Terrier       | BoT | NonFear   | 70  | 0.716 | 0.677 | 0.459 |
| Border Terrier       | BoT | OwnAggr   | 72  | 0.097 | 0.209 | 0.044 |
| Border Terrier       | BoT | RivalryAg | 60  | 0.281 | 0.633 | 0.401 |
| Border Terrier       | BoT | SepFear   | 2   | 0.52  | 0.532 | 0.283 |
| Border Terrier       | BoT | StrAggr   | 71  | 0.405 | 0.462 | 0.214 |
| Border Terrier       | BoT | StrFear   | 72  | 0.524 | 0.845 | 0.713 |
| Border Terrier       | BoT | TouchFear | 71  | 0.72  | 0.686 | 0.47  |
| Brittany Spaniel     | BrS | DogAggr   | 111 | 0.673 | 0.778 | 0.606 |
| Brittany Spaniel     | BrS | DogFear   | 109 | 0.664 | 0.764 | 0.583 |
| Brittany Spaniel     | BrS | NonFear   | 112 | 0.572 | 0.498 | 0.248 |
| Brittany Spaniel     | BrS | OwnAggr   | 116 | 0.094 | 0.249 | 0.062 |
| Brittany Spaniel     | BrS | RivalryAg | 97  | 0.353 | 0.509 | 0.259 |
| Brittany Spaniel     | BrS | SepFear   | 115 | 0.661 | 0.617 | 0.381 |
| Brittany Spaniel     | BrS | StrAggr   | 115 | 0.438 | 0.481 | 0.232 |
| Brittany Spaniel     | BrS | StrFear   | 116 | 0.46  | 0.672 | 0.451 |

|                    |     |           |     |       |       |       |
|--------------------|-----|-----------|-----|-------|-------|-------|
| Brittany Spaniel   | BrS | TouchFear | 116 | 0.646 | 0.673 | 0.453 |
| Norwegian Elkhound | Elk | DogAggr   | 33  | 0.725 | 0.887 | 0.787 |
| Norwegian Elkhound | Elk | DogFear   | 33  | 0.606 | 0.862 | 0.742 |
| Norwegian Elkhound | Elk | NonFear   | 33  | 0.631 | 0.644 | 0.414 |
| Norwegian Elkhound | Elk | OwnAggr   | 33  | 0.225 | 0.518 | 0.268 |
| Norwegian Elkhound | Elk | RivalryAg | 27  | 0.241 | 0.329 | 0.108 |
| Norwegian Elkhound | Elk | SepFear   | 33  | 0.331 | 0.494 | 0.244 |
| Norwegian Elkhound | Elk | StrAggr   | 33  | 0.605 | 0.738 | 0.544 |
| Norwegian Elkhound | Elk | StrFear   | 33  | 0.318 | 0.567 | 0.321 |
| Norwegian Elkhound | Elk | TouchFear | 32  | 0.69  | 0.695 | 0.483 |
| English Setter     | ESt | DogAggr   | 76  | 0.602 | 0.827 | 0.684 |
| English Setter     | ESt | DogFear   | 74  | 0.72  | 0.877 | 0.77  |
| English Setter     | ESt | NonFear   | 76  | 0.49  | 0.562 | 0.316 |
| English Setter     | ESt | OwnAggr   | 78  | 0.115 | 0.317 | 0.101 |
| English Setter     | ESt | RivalryAg | 67  | 0.578 | 0.722 | 0.521 |
| English Setter     | ESt | SepFear   | 78  | 0.423 | 0.577 | 0.333 |
| English Setter     | ESt | StrAggr   | 78  | 0.316 | 0.345 | 0.119 |
| English Setter     | ESt | StrFear   | 78  | 0.327 | 0.538 | 0.289 |
| English Setter     | ESt | TouchFear | 75  | 0.421 | 0.588 | 0.346 |
| Eurasier           | Eur | DogAggr   | 45  | 0.461 | 0.538 | 0.29  |
| Eurasier           | Eur | DogFear   | 48  | 0.293 | 0.323 | 0.105 |
| Eurasier           | Eur | NonFear   | 48  | 0.453 | 0.42  | 0.176 |
| Eurasier           | Eur | OwnAggr   | 47  | 0.118 | 0.358 | 0.128 |
| Eurasier           | Eur | RivalryAg | 44  | 0.47  | 0.718 | 0.515 |
| Eurasier           | Eur | SepFear   | 48  | 0.271 | 0.435 | 0.189 |
| Eurasier           | Eur | StrAggr   | 48  | 0.382 | 0.474 | 0.225 |
| Eurasier           | Eur | StrFear   | 45  | 0.517 | 0.728 | 0.53  |
| Eurasier           | Eur | TouchFear | 47  | 0.576 | 0.568 | 0.322 |
| Finnish Spitz      | FSp | DogAggr   | 10  | 1.067 | 0.7   | 0.489 |
| Finnish Spitz      | FSp | DogFear   | 10  | 0.708 | 0.429 | 0.184 |
| Finnish Spitz      | FSp | NonFear   | 10  | 0.92  | 0.658 | 0.433 |
| Finnish Spitz      | FSp | OwnAggr   | 10  | 0.101 | 0.277 | 0.077 |
| Finnish Spitz      | FSp | RivalryAg | 7   | 1.214 | 0.847 | 0.717 |
| Finnish Spitz      | FSp | SepFear   | 10  | 0.313 | 0.531 | 0.282 |
| Finnish Spitz      | FSp | StrAggr   | 10  | 0.35  | 0.409 | 0.167 |
| Finnish Spitz      | FSp | StrFear   | 10  | 0.5   | 0.874 | 0.764 |
| Finnish Spitz      | FSp | TouchFear | 10  | 0.7   | 0.55  | 0.303 |
| Gordon Setter      | GoS | DogAggr   | 27  | 0.784 | 0.784 | 0.614 |
| Gordon Setter      | GoS | DogFear   | 27  | 0.657 | 0.896 | 0.804 |
| Gordon Setter      | GoS | NonFear   | 27  | 0.618 | 0.556 | 0.309 |
| Gordon Setter      | GoS | OwnAggr   | 27  | 0.061 | 0.107 | 0.011 |
| Gordon Setter      | GoS | RivalryAg | 26  | 0.635 | 0.686 | 0.471 |
| Gordon Setter      | GoS | SepFear   | 27  | 0.482 | 0.717 | 0.514 |
| Gordon Setter      | GoS | StrAggr   | 26  | 0.45  | 0.502 | 0.252 |
| Gordon Setter      | GoS | StrFear   | 27  | 0.444 | 0.864 | 0.747 |

|                                    |     |           |     |       |       |       |
|------------------------------------|-----|-----------|-----|-------|-------|-------|
| Gordon Setter                      | GoS | TouchFear | 27  | 0.521 | 0.528 | 0.278 |
| Greyhound                          | Gry | DogAggr   | 138 | 0.536 | 0.798 | 0.636 |
| Greyhound                          | Gry | DogFear   | 139 | 0.758 | 0.864 | 0.747 |
| Greyhound                          | Gry | NonFear   | 141 | 1.007 | 0.849 | 0.721 |
| Greyhound                          | Gry | OwnAggr   | 143 | 0.132 | 0.261 | 0.068 |
| Greyhound                          | Gry | RivalryAg | 120 | 0.526 | 0.628 | 0.394 |
| Greyhound                          | Gry | SepFear   | 138 | 0.629 | 0.701 | 0.491 |
| Greyhound                          | Gry | StrAggr   | 138 | 0.138 | 0.322 | 0.104 |
| Greyhound                          | Gry | StrFear   | 139 | 0.698 | 1.077 | 1.159 |
| Greyhound                          | Gry | TouchFear | 139 | 0.69  | 0.759 | 0.577 |
| Irish Wolfhound                    | IrW | DogAggr   | 45  | 0.541 | 0.974 | 0.948 |
| Irish Wolfhound                    | IrW | DogFear   | 44  | 0.472 | 0.791 | 0.626 |
| Irish Wolfhound                    | IrW | NonFear   | 45  | 0.66  | 0.679 | 0.461 |
| Irish Wolfhound                    | IrW | OwnAggr   | 45  | 0.045 | 0.094 | 0.009 |
| Irish Wolfhound                    | IrW | RivalryAg | 38  | 0.423 | 0.758 | 0.574 |
| Irish Wolfhound                    | IrW | SepFear   | 45  | 0.391 | 0.444 | 0.197 |
| Irish Wolfhound                    | IrW | StrAggr   | 45  | 0.21  | 0.235 | 0.055 |
| Irish Wolfhound                    | IrW | StrFear   | 45  | 0.411 | 0.745 | 0.554 |
| Irish Wolfhound                    | IrW | TouchFear | 44  | 0.511 | 0.604 | 0.365 |
| Jack Russel Terrier                | JRT | DogAggr   | 284 | 1.477 | 1.142 | 1.304 |
| Jack Russel Terrier                | JRT | DogFear   | 279 | 0.826 | 0.906 | 0.821 |
| Jack Russel Terrier                | JRT | NonFear   | 285 | 0.93  | 0.764 | 0.584 |
| Jack Russel Terrier                | JRT | OwnAggr   | 291 | 0.322 | 0.547 | 0.299 |
| Jack Russel Terrier                | JRT | RivalryAg | 242 | 0.983 | 0.958 | 0.918 |
| Jack Russel Terrier                | JRT | SepFear   | 291 | 0.707 | 0.668 | 0.446 |
| Jack Russel Terrier                | JRT | StrAggr   | 286 | 0.799 | 0.77  | 0.592 |
| Jack Russel Terrier                | JRT | StrFear   | 289 | 0.575 | 0.837 | 0.701 |
| Jack Russel Terrier                | JRT | TouchFear | 279 | 0.833 | 0.715 | 0.511 |
| Newfoundland                       | NFd | DogAggr   | 45  | 0.674 | 0.782 | 0.611 |
| Newfoundland                       | NFd | DogFear   | 48  | 0.462 | 0.653 | 0.426 |
| Newfoundland                       | NFd | NonFear   | 49  | 0.712 | 0.643 | 0.413 |
| Newfoundland                       | NFd | OwnAggr   | 49  | 0.131 | 0.355 | 0.126 |
| Newfoundland                       | NFd | RivalryAg | 42  | 0.448 | 0.603 | 0.364 |
| Newfoundland                       | NFd | SepFear   | 49  | 0.455 | 0.431 | 0.186 |
| Newfoundland                       | NFd | StrAggr   | 49  | 0.35  | 0.393 | 0.154 |
| Newfoundland                       | NFd | StrFear   | 49  | 0.199 | 0.635 | 0.404 |
| Newfoundland                       | NFd | TouchFear | 49  | 0.617 | 0.611 | 0.373 |
| Nova Scotia Duck Tolling Retriever | NSD | DogAggr   | 66  | 0.607 | 0.716 | 0.512 |
| Nova Scotia Duck Tolling Retriever | NSD | DogFear   | 66  | 0.525 | 0.658 | 0.434 |
| Nova Scotia Duck Tolling Retriever | NSD | NonFear   | 66  | 0.701 | 0.672 | 0.452 |
| Nova Scotia Duck Tolling Retriever | NSD | OwnAggr   | 67  | 0.091 | 0.208 | 0.043 |
| Nova Scotia Duck Tolling Retriever | NSD | RivalryAg | 62  | 0.496 | 0.612 | 0.374 |
| Nova Scotia Duck Tolling Retriever | NSD | SepFear   | 67  | 0.465 | 0.496 | 0.246 |
| Nova Scotia Duck Tolling Retriever | NSD | StrAggr   | 65  | 0.299 | 0.354 | 0.125 |
| Nova Scotia Duck Tolling Retriever | NSD | StrFear   | 66  | 0.451 | 0.603 | 0.364 |

|                                    |     |           |     |       |       |       |
|------------------------------------|-----|-----------|-----|-------|-------|-------|
| Nova Scotia Duck Tolling Retriever | NSD | TouchFear | 67  | 0.657 | 0.681 | 0.464 |
| Schipperke                         | Sci | DogAggr   | 27  | 1.016 | 0.921 | 0.848 |
| Schipperke                         | Sci | DogFear   | 27  | 0.633 | 0.681 | 0.464 |
| Schipperke                         | Sci | NonFear   | 27  | 0.595 | 0.549 | 0.301 |
| Schipperke                         | Sci | OwnAggr   | 27  | 0.186 | 0.347 | 0.12  |
| Schipperke                         | Sci | RivalryAg | 26  | 0.667 | 0.759 | 0.577 |
| Schipperke                         | Sci | SepFear   | 26  | 0.351 | 0.385 | 0.148 |
| Schipperke                         | Sci | StrAggr   | 26  | 0.764 | 0.717 | 0.513 |
| Schipperke                         | Sci | StrFear   | 26  | 0.538 | 0.673 | 0.453 |
| Schipperke                         | Sci | TouchFear | 26  | 0.788 | 0.848 | 0.719 |
| Chinese Shar-Pei                   | ShP | DogAggr   | 37  | 1.392 | 1.008 | 1.016 |
| Chinese Shar-Pei                   | ShP | DogFear   | 36  | 0.701 | 0.795 | 0.632 |
| Chinese Shar-Pei                   | ShP | NonFear   | 38  | 0.735 | 0.76  | 0.577 |
| Chinese Shar-Pei                   | ShP | OwnAggr   | 40  | 0.238 | 0.504 | 0.254 |
| Chinese Shar-Pei                   | ShP | RivalryAg | 26  | 0.772 | 0.753 | 0.567 |
| Chinese Shar-Pei                   | ShP | SepFear   | 40  | 0.699 | 0.818 | 0.67  |
| Chinese Shar-Pei                   | ShP | StrAggr   | 40  | 1.029 | 0.866 | 0.75  |
| Chinese Shar-Pei                   | ShP | StrFear   | 38  | 0.961 | 0.907 | 0.823 |
| Chinese Shar-Pei                   | ShP | TouchFear | 39  | 1.077 | 1.081 | 1.169 |
| Weimaraner                         | Wei | DogAggr   | 107 | 0.805 | 0.754 | 0.568 |
| Weimaraner                         | Wei | DogFear   | 109 | 0.878 | 0.792 | 0.628 |
| Weimaraner                         | Wei | NonFear   | 107 | 0.612 | 0.669 | 0.448 |
| Weimaraner                         | Wei | OwnAggr   | 112 | 0.123 | 0.401 | 0.16  |
| Weimaraner                         | Wei | RivalryAg | 97  | 0.49  | 0.654 | 0.427 |
| Weimaraner                         | Wei | SepFear   | 111 | 0.799 | 0.845 | 0.714 |
| Weimaraner                         | Wei | StrAggr   | 109 | 0.641 | 0.683 | 0.467 |
| Weimaraner                         | Wei | StrFear   | 111 | 0.585 | 0.776 | 0.602 |
| Weimaraner                         | Wei | TouchFear | 109 | 0.616 | 0.687 | 0.473 |

**Table S3. C-BARQ behavioral phenotypes used to test predictive model**

<sup>1</sup>Breed abbreviations from Vaysse et al. (1)

## References

1. A. Vaysse *et al.*, Identification of Genomic Regions Associated with Phenotypic Variation between Dog Breeds using Selection Mapping. *PLoS Genet* **7**, e1002316 (2011).