

## Position Statement Regarding Reducing

### Deafness in the Dalmatian as adopted August 7, 2004

The Dalmatian Club of America has always viewed the safeguarding of the health of the Dalmatian to be a primary reason for the Club's existence. Through its Health and Research Committees the DCA has sponsored and supported the search for solutions in various health matters pertinent to the well being of the Dalmatian.

The Health and Research Committee's study group on hearing has accumulated and studied statistical information regarding the incidence of unilateral and total deafness in the Dalmatian. The work of this study group covers twenty five years and encompasses testing done throughout the United States at numerous test sites and veterinary centers. One study of phenotype done through time by George M. Strain, Ph.D., evaluated 5333 Dalmatians. In the general population of Dalmatians, this study would show that 70.1% are bilaterally hearing dogs, 21.9% are unilaterally deaf, and 8.0% are bilaterally deaf. <sup>1</sup> Another study of phenotype done through time by Susanne A. Hughes, DVM, evaluated 1046 Dalmatians. In the general population of Dalmatians, this study would show that 78.3% are bilaterally hearing dogs, 17.9% are unilaterally deaf, and 3.8% are bilaterally deaf. <sup>2</sup> Included below is part of the information gathered by the Health and Research Committee in the form of data relating to the breeding of unilaterally deaf and blue-eyed dogs. This data shows with statistical certainty that the hearing soundness of the Dalmatian can be greatly improved by selective breeding practices.

Statistical data from researchers across the United States is summarized here with bilaterally hearing dogs being referred to as "B" and unilaterally deaf dogs being referred to as "U" in the parent crosses and their offspring. "n=" represents the numbers of dogs tested.

Parentage Hearing Impact on Deafness in Dalmatian Offspring					
Researcher	Parents	B offspring	U offspring	Deaf offspring	n =
Vima Yuzbasiyan-Gurkan, Ph. D. <sup>3</sup>	B x B	81%	16%	3%	382
	B x U	71%	16%	13%	109
Susanne Hughes, D.V.M. <sup>4</sup>	B x B	82.3%	14.5%	3.2%	809
	B x U	64.6%	29.5%	5.9%	237
George Strain, Ph. D. <sup>5</sup>	B x B	72.0%	21.6%	6.4%	2624
	B x U	59.7%	29.9%	10.4%	804

The Dalmatian Club of America By-Laws include as purposes of the Club the collection and dissemination of information concerning the Dalmatian dog and the promotion and engagement in research into the breeding of the Dalmatian. Therefore, to ensure that Dalmatian breeding practices produces fewer deaf dogs, the Dalmatian Club of America strongly recommends that Dalmatian breeders seriously consider using only bilaterally hearing dogs in their breeding program. Bilaterally deaf dogs should never

be bred. The Dalmatian Club of America recommends that breeders should communicate this information and its implications to the new owners of dogs that they have bred.

Phenotypic Hearing Ratios Relating to Deafness in Dogs with Blue Eyes (BR = Brown Eye and BL = Blue Eye):					
Researcher	Eye Phenotype	Percentage B	Relating to U	Hearing Deaf	n =
George Strain, Ph. D. <sup>6</sup>	BRBR	72.7%	20.9%	6.5%	4650
	BRBL	49.1%	32.4%	18.4%	407
	BLBL	49.3%	32.2%	18.5%	146
Thomas R. Famula, Ph. D. <sup>7</sup>	BRBR	78%	16%	6%	2501
	BRBL	51%	34%	15%	249
	BLBL	42%	38%	20%	60
Susanne Hughes, D.V.M. <sup>8</sup>	BRBR	78.0%	17.3%	4.6%	1143
	BL--	59.6%	30.1%	10.6%	166

Research indicates that blue eyed dogs are linked to a greater incidence of deafness. The Dalmatian Club of America strongly recommends that Dalmatian breeders seriously consider using only brown eyed dogs in their breeding program. The Dalmatian Club of America recommends that breeders should communicate this information and its implications to the new owners of dogs that they have bred.

In summary, The Dalmatian Club of America recognizes that deafness in the Dalmatian is one of the most serious problems facing conscientious breeders. Using only bilaterally hearing, brown-eyed Dalmatians in a breeding program demonstrates the best approach for reducing deafness in the Dalmatian.

1. Strain, George M. "Deafness prevalence and pigmentation and gender association in dog breeds at risk," *The Veterinary Journal*, 167, 2004, pg. 23-32, Elsevier Science Ltd. 2003, pg. 2.
2. Hughes, Susanne A. *Statistics memorandum to the Dalmatian Club of America, Inc.*, May 1, 2004.
3. Dalmatian Club of America. "[Position Statement Regarding Reducing Deafness in the Dalmatian.](#)" December 5, 1998.
4. Hughes, Susanne A. *Statistics memorandum to the Dalmatian Club of America, Inc.*, May 1, 2004.
5. Strain, George M. "Deafness prevalence and pigmentation and gender association in dog breeds at risk," *The Veterinary Journal*, 167, 2004, pg. 23-32, Elsevier Science Ltd. 2003, pg. 7, extended by memorandum.
6. Strain, George M. "Deafness prevalence and pigmentation and gender association in dog breeds at risk," *The Veterinary Journal*, 167, 2004, pg. 23-32, Elsevier Science Ltd. 2003, pg. 7, extended by memorandum.

7. *Famula, Thomas R. "Dalmatian Hearing Statistics," University of California, Davis, Statistics memorandum to the Dalmatian Club of America, Inc., December 8, 2003.*
  8. *Hughes, Susanne A. Statistics memorandum to the Dalmatian Club of America, Inc., May 1, 2004.*
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