

Duty period and discharging reasons of police dogs

**Joanna Kania-Gierdziewicz, Sylwia Pałka,
Konrad Koziół, Maciej Gierdziewicz**

University of Agriculture in Krakow, Faculty of Animal Science,
Department of Genetics and Animal Breeding,
al. Mickiewicza 24/28, 30-059 Kraków;
e-mail: rzkania@cyf-kr.edu.pl

The purpose of the paper was to estimate duty period and reasons for discharging of police dogs. Starting age, duty period, age at and reasons for discharging have been examined for 71 dogs, released from duty in the years 2001-2006, at one of Cracow Police stations. The mean values of age at entering and leaving service period, age at entering and leaving service period and frequency of leaving reasons have been estimated. The dogs entered service mainly at the age of 1-2 years. Over half the dogs have been used for 7 to 10 years and most of the animals have been on duty for 7-8 years. The average discharging age was 8 years. Over half (55%) of the dogs released from duty have been handed over to their former handlers. Other dogs have been put to sleep or died in another way (45%); the main reason in both cases was poor general health condition.

KEY WORDS: official duty dogs / performance length / reasons for culling / police

In many countries worldwide dogs are the most popular pet animals. The presence of a dog in our surroundings, apart from the companion role, brings tangible benefits alleviating stress and promoting the sense of wellbeing in the owner [14]. Moreover, for ages dogs have been used in hunting, guarding homes and livestock, in sleighing and recently also as guide dogs for the blind, rescue dogs during natural disasters, assisting animals in therapy as well as in the role of animals detecting explosives, drugs and other substances [6, 8]. The latter dogs serve as detection animals in police units and fire brigades, customs agencies and the military. The common characteristics of working dogs include boldness, gregariousness, stamina, courage, intelligence, the ability and willingness to learn as well as ability to work under various conditions and around strangers [1, 3, 16]. Medium sized dog breeds seem to be most suitable for this purpose (German and Belgian Shepherds, Labrador Retrievers, Rottweilers, as well as Border Collies, Golden Retrievers and Beagles). The process of selecting puppies to become working dogs and their training should be started at week 8 of life, not later than at the age of 9 months [13]. Occasionally some

dogs perform assigned tasks better than others, which results mainly from behavioural rather than morphological or sensory differences [5, 10, 15]. The mean longevity of dogs is approx. 11-13 years [7], with dogs of large breeds living shorter than representatives of small breeds [12]. The length of the service period and reasons for discharge of working dogs were analysed in the case of dogs in customs agencies [4], and recently [17] also dogs of the Polish Border Guard. To date no such analyses have been performed on police working dogs. Thus the aim of this study was to determine the length of the service period of police working dogs and reasons for their discharge.

Material and methods

Analyses were conducted on a population of 71 police working dogs from the District Police Headquarters in the City of Krakow, which were discharged from service (or culled) in the years 2001-2006. Based on the individual records of each dog the following data were collected: age of the dog when entering service, age of the dog at discharge (culling), breed, sex, coat colour, type of service and causes for discharge (culling). On the basis of age of the dog when entering service and age at discharge the length of service life was calculated.

Based on the documentation seven categories of service were distinguished: antiterrorist operations (ATER), detection of explosives (MWYB), patrol duty (PAT), patrol and tracking duty (PTROP), riot control operations (PREW), tracking (TROP) and sentry duty (WART).

In the next step of the study causes for discharge (or culling) of the police working dogs were determined. Based on the collected records three groups of causes were distinguished, i.e. discharge from active duty followed by the donation of the retired dog to its handler, euthanasia as a result of a diagnosed incurable disease and death as a result of underlying disease.

All the above-mentioned information was recorded in the form of a file in the Excel spreadsheet and subjected to further analyses. The data were analysed statistically using the SAS software package [11].

Results and discussion

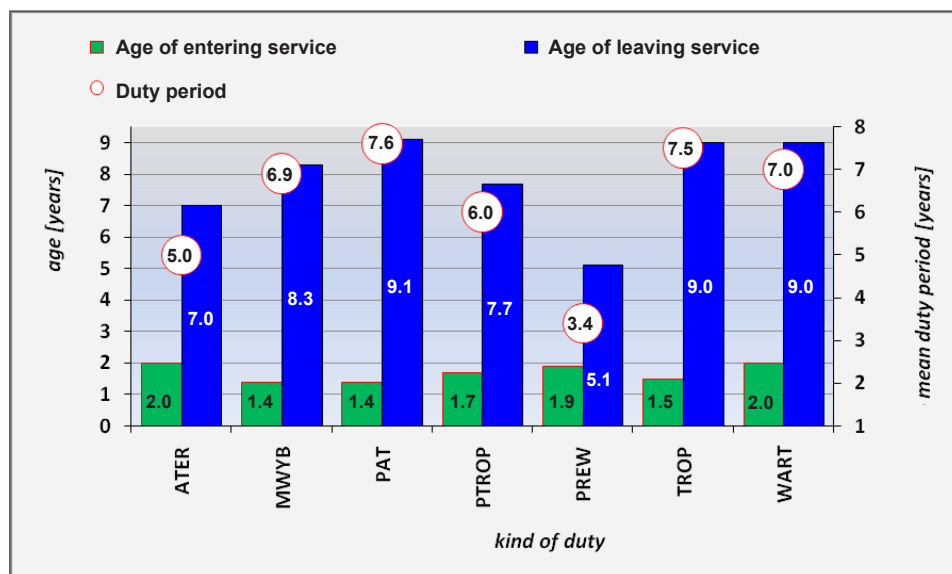
The collected source data showed that among the analysed dogs the most numerous group consisted of animals which entered active service at the age of 1 to 2 years, while older dogs were accepted to service only occasionally. Similarly Zajac et al. [17] stated that the mean age of dogs selected for service in the Border Guard at the time of purchase was 16 months (approx. 1.5 years). This is consistent also with the opinion of Pobiedziński [9], according to whom it is optimal to start training of a dog to service in the Border Guard at the age of 12-24 months. In contrast, Laska [4] presented an opinion that dogs may start serving in the Customs Service already at the age of 7 weeks. This confirms the assumption of Slabbert and Odendaal [13] that dogs should enter service before the age of 9 months.

The mean age of dogs at discharge or culling was 8 years, ranging from 2 to 12 years. Very similar results to those recorded in this study were found by Zając et al. [17], who estimated the mean age at discharge from service at the Border Guard at 8.7 years. Also in a study by Evans et al. [2] it was 8.05 years for dogs discharged from military service in the US Army. The largest numbers of dogs were discharged at the age from 7 to 10 years. They accounted for a total of 74.7% all discharged dogs. Animals staying in service longer, i.e. 11-year old or older, accounted for as much as 8.5%. A numerous group comprised dogs with a relatively short service life, they were dogs from age groups of 2-4 and 5-6 years, jointly constituting 16.9% all discharged animals. On this basis it may be concluded that the age at discharge and the length of service period are determined by individual characteristics of a given animal, being the cause for this variability. This is particularly evident when we take into consideration the fact that dogs are selected for service generally at the age of 1 to 2 years, thus at the time of entering service the whole population of working dogs may be considered age mates.

Dogs remaining in service for 7-8 years accounted jointly for over 46% the entire population. Over 22% (22.6%) dogs were in service until the age of 5-6 years, while the share of dogs remaining in service for 9-10 years was 14.1%. Summing up it may be assumed that over 50% of dogs were in service for 7 up to 10 years, while the most numerous group comprised dogs in service for 7 or 8 years. Dogs working for only 1 to 2 years accounted for 7% of the entire analysed group, while dogs in service for 3 to 4 years accounted for almost 10%. In a study by Zając et al. [17] very similar results were recorded, since the mean length of the service period for Border Guard dogs was 7.4 years.

As it was mentioned in the Methods section, dogs were divided in terms of seven categories of service. Considerable variability was observed in the age of dogs at the time of discharge depending on the type of service (Fig.). Thus dogs used in riot control units were discharged at the age of 5.1 years, while working dogs in the patrol and tracking service and in antiterrorist units were discharged at the age of over 7 years. In those groups dogs were removed from active service the earliest. As it results from these means, the oldest age at discharge was reached by dogs working in patrol, tracking and sentry duties, which stayed in service until the age of 9 years and more. The length of the service period in individual groups showed similar trends to those observed for the previously discussed index, i.e. age at discharge. It was shown that the type of service may have a significant effect on the length of the service period and thus also on the age at discharge. In their study Zając et al. [17] reported that the mean age at discharge of dogs from the Border Guard ranged from 8.65 to 8.82 years, depending on the specific type of service. However, in the case of Polish Border Guard dogs they found no dependence between the type of service and the age at discharge [17]. Similar results to those recorded in this study, i.e. amounting on average to slightly over 8 years, were reported by Evans et al. [2] for dogs discharged from the US Army. German Shepherds were discharged earlier than dogs of other breeds, which were discharged at the age of over 10 years [2].

Based on the records of dogs removed from service after a working period the circumstances of their removal from service were identified. Causes for discharge or culling were classified into three categories: donation to the handler, euthanasia for health-related reasons and natural death due to health problems. The largest number of dogs released from



ATER – antiterroristic operations; MWYB – detection of explosive materials; PAT – patrol duty; PTROP – patrol-tracking duty; PREW – prevention activity; TROP – tracking; WART – guard duty

Fig. Age of dogs at recruitment and discharge or culling (entering and leaving the service) and mean duty period depending on the kind of duty

service comprised dogs given to their former handlers. This group accounted for 55% all investigated dogs and it was analysed in more detail. Handlers received dogs of various ages, ranging from 7 to 12 years. The largest group comprised dogs aged 8, 9 and 10 years, accounting for 20.0%, 32.5% and 22.5%, respectively. This group of dogs jointly constituted as much as 75% all dogs released to the care of their former handlers. Such causes for younger dogs, aged 7 and 8 years, may not be identified on the basis of available documentation. According to Zając et al. [17], as much as 86.3% dogs were retired and they were donated to the former handlers or other interested individuals.

It results from the conducted analyses that death for natural causes and euthanasia due to health problems accounted jointly for 45%, i.e. less than it was reported in a study by Mitchell [7], in which mortality was 64%. However, this value was higher than that recorded by Zając et al. [17] at a total of 12.2% for both these causes jointly.

After analysing records of euthanised dogs 6 categories of health causes were identified, among which the most frequent was general health condition (as much as 35.7% cases). In turn, the shares of joint disorders, cardiovascular diseases, cancer and psychological problems were comparable and for each of these categories amounted to slightly over 14%. Diseases of the alimentary system accounted for 7.1% all cases of euthanasia.

Another group comprised dogs, which died for natural causes. Similarly as in the analysis of euthanasia causes, also in this group a detailed analysis was conducted on death

causes. Seven categories of natural deaths were distinguished: general health condition (no specific underlying cause identified), cardiovascular disorders, alimentary system diseases, kidney or liver failure, cancer and psychological problems. The shares of individual disorders in the analysed group of dogs were relatively varied. The most common cause was death due to disease of the alimentary tract (33.3%), followed by the general health condition (22.2%), with cardiovascular failure ranking third (16.7%). The less frequent cause of death was connected with kidney failure (5.6%). In a study by Michell [7] the most frequent causes of death were connected with cancer (16%) and diseases of the circulatory system (8%).

Based on the data from individual records of dogs the frequency of various types of disorders was estimated in the investigated group (population). For this purpose the group of dogs which died for natural causes and the group of euthanised dogs were combined. They were a total of 32 animals. It was established that similar causes of death were found in both groups, i.e. general health condition (with no specific cause identified), circulatory failure, diseases of the alimentary system, cancer and psychological problems. Causes defined differently in the group of dogs, in which natural death occurred, and in the euthanised group were combined into one group, classified as „others”. It may be assumed that dogs transferred to the care of their former handlers were healthy, i.e. approx. 55% population showed none of the registered disorders leading to their elimination. In turn, in the analysed population the syndrome termed as general (assumed to be bad) health condition was found in 12.7% cases. Diseases of the circulatory system were diagnosed in 7% animals, while diseases of the alimentary tract were found in almost 10% dogs, while cancer was diagnosed in 5.6% cases. We need to mention here the 4.2% share of dogs with diagnosed psychological disorders. As it was reported in the documentation, some of these disorders are cases of anxiety. Evans et al. [2] reported behavioural disorders as the most frequent cause for discharge of dogs from the US Army. In their study they stated that in the years 2000-2004 over 82% dogs were discharged for this reason. According to Zajac et al. [17], the most frequent cause for discharge of dogs from the Polish Border Guard was connected with old age (over 65% cases), followed by the so-called other causes (over 9% cases), i.e. those which could not be identified as specific disorders. Cancer cases ranked next (over 5% cases), locomotory disorders (over 6%) and diseases of the alimentary tract (over 4.5%). In turn, the other causes for the discharge of dogs from the Border Guard, including cardiovascular and behavioural disorders, comprised only from approx. 1% to over 3% cases [17].

In summary it may be stated that all the analysed dogs were kept under identical environmental conditions, i.e. they were housed in the same facilities and received identical diets. Thus it may be assumed that the considerable differences found between the groups or individual dogs in terms of age at discharge or culling were caused by individual genetic variation between specific dogs and the related differences in resistance to pressure resulting from a given type of service. On the other hand, they indicated that the type of service (more or less stressful) has a very important effect on the length of the service period for police dogs. Thus it may be assumed that when assigning a dog to specific tasks we need to consider their genetic susceptibility to burden related with a specific type of work to be performed.

REFERENCES

1. BEATA C., 2006 – Attachment: the road to balance. A key for successful adoption and a basis of ability for AAI and AAA. In: De Meester, R., Moons, C., Mulken, F. (Eds.), Proceedings of the VDWE International Congress on Companion Animal Behavior and Welfare, VDV, Saint-Niklass, Belgium, 24-30.
2. EVANS R., HERBOLD R., BRADSHAW B.S., MOORE G.E., 2007 – Causes for discharge of military working dogs from service: 268 cases (2000-2004). *Journal of the American Veterinary Medicine Association* 231, 1215-1220.
3. KODA N., 2001 – Development of play behavior between potential guide dogs for the blind and human raisers. *Behavioural Processes* 53, 41-46.
4. LASKA R. 2009 – Psy służbowe w administracji celnej. *Wiadomości Celne* 3-4, 4-5.
5. MAEJIMA M., INOUE-MURAYAMA M., TONOSAKI K., MATSUURA N., KATO S., SAITO Y., WEISS A., MURAYAMA Y., ITO S.I., 2007 – Traits and genotypes may predict the successful training of drug detection dogs. *Applied Animal Behaviour Science* 107, 287-298.
6. MARITI CH., RICCI E., CARLONE B., MOORE J.L., SIGHIERI C., GAZZANO A., 2012 – Dog attachment to a man: A comparison between pet and working dogs. *Journal of Veterinary Behaviour*, Available online doi:10.1016/j.jveb.2012.05.006
7. MICHELL A.R., 1999 – Longevity of British breeds of dog and its relationship with-sex, size, cardiovascular variables and disease. *Veterinary Record* 14, 625-629.
8. OLSON P.N., 2002 – The modern working dog – a call for interdisciplinary collaboration. *Journal of American Veterinary Medical Association* 221, 352-355.
9. POBIEDZIŃSKI S., 2004 – Kynologia w Straży Granicznej. Część I. *Biuletyn Centralnego Ośrodka Szkolenia Straży Granicznej* 2, 177-181.
10. ROONEY N.J., GAINES S.A., BRADSHAW J.W.S., PENMAN S. 2007 – Validation of a method for assessing the ability of trainee specialist search dogs. *Applied Animal Behaviour Science* 103, 90-104.
11. SAS/STAT(R) 9.2 User's Guide, Second Edition. *SAS Institute Inc.*, Cary, NC., 2010.
12. SIEGAL M. 1995 – UC Davis School of Veterinary Medicine Book of the Dogs. Chapter 5. Harper Collins, New York
13. SLABBERT J.M., ODENDAAL J.S.J. 1999 – Early Prediction of adult police dog efficiency – a longitudinal study. *Applied Animal Behaviour Science* 64, 269-288.
14. STAFFORD K. 2006 – The Welfare of Dogs. Wyd. Springer, Dordrecht.
15. SVARTBERG K. 2002 – Shyness-boldness predicts performance in working dogs. *Applied Animal Behaviour Science* 79, 157-174.

16. SVARTBERG K. 2006 – Breed-typical behavior in dogs – Historical remnants or recent constructs? *Applied Animal Behaviour Science* 96, 293-313.
17. ZAJĄC A., KRUSZYŃSKI W., CIECHAŃSKA J. 2011 – Długość użytkowania i przyczyny wycofywania ze służby psów straży granicznej w latach 2002-2008. *Acta Scientiarum Polonorum, Medicina Veterinaria* 10(2), 5-16.